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ORIGINAL ARTICLES.

THE ELEMENT OF HABIT IN GYNECIC DISEASE.

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"The situation has never yet been occupied by man;
That has not its duty; its ideal.
Yes; here in this poor miserable actual,
Wherein thou even now standest; here, or
Nowhere is thine ideal.
Work it out, therefore, and in the working
Live, believe, be free."

THE ARGUMENT.

1. The national endowment and conditions.
2. Primitive type to standard type.
3. The law of conservation of energy operates for, and necessitates the operation of, the "element of habit."
4. The law of conservation of energy, operating in conjunction with original endowment, insures persistence of the "element of habit."
5. The operation of the law of continuity.
6. Variation in type, acquired by change in environment operating on primitive type.
7. The law of conservation and continuity necessitate the operation of the "element of habit" in the variation in type.
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9. Report of cases illustrating the variation in type and the "element of habit."
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In the evolution of truth accomplished by the finite mind it became necessary, from the very nature of things, that the beginning should be in the simple and often error-laden method of observing, collecting and arranging those incidents termed facts, and from these by various processes of proving and testing, arriving at the knowledge of the thing sought for.

In all this there has, and always will be, the personal equation; and our experience and knowledge of this element clearly demonstrates a positive variation in type in all conditions and circumstances so universal that one is forced, if he be a seeker after truth, to become skeptical and stand askance on presentation to the results attained. While it can be readily and easily established that this variation is obedient to a universal law and order, it is not always a matter easily demonstrated that to the personal equation in large degree, if not wholly, the variety in conclusion we seem to be so abundantly blessed with, and that, too, in relation to the same facts, methods and the et ceteras of our work, must we attribute much of our delay, undoing and contradictions. If we will eliminate this factor, to the extent of abolishing the conscious acquired ego, and permit the unconscious acquired capacity, evolved from hard honest work for truth to prevail in us, there is a law in the universe, the discovery of which was, has and will ever be the greatest of all ages, that of continuity or uniformity, that will harmonize all confusion and lead hard and close to the truth. This has long since been recognized by the naturalist, physicist, mathematician, astronomer and real scientist, but the larger mass of the medical world, and many of the leaders, seem to have little conception of the great blessing at hand. What a brilliant, tragically earnest demonstration the discovery of the planet Neptune was of this thought, where the independent work of four men, who reasoned in accordance with this law, resulted in at last being able to turn the lense upon the very spot in space where the planet was fixed.

We do not wish to be understood as belittling in any sense the marvelous work and progress that has been made in the past in our profession, but simply call attention to a few truths which if fully and reasonably comprehended must necessarily lead to less waste of valuable time and energy, and brush away much unnecessary and seemingly incessant contradiction and confusion. In the consideration of our theme we shall, therefore, endeavor to so approach and consider it that this philosophy may be manifest; and at many places we all can find common ground of agreement and thereby insure profit in what may follow at your hands.

As a first evidence of this, we wish to call attention to the striking suggestiveness that words convey in the consideration of any subject; and always when rightly used point to truth. We are all familiar with the words, natural, normal and standard, and I dare say many of us use them more or less interchangeably, when in truth, while allied in meaning, they are and should be specific, and when so used lead to entirely different conceptions and enforce the truths contained in no uncertain way.

Natural, is derived from *natura*, meaning *born*, *produced*, as the adjective means pertaining to the constitution of a thing; belonging to native characteristics; essential; not assumed, put on or acquired. Normal, is derived from *norma*, rule; as the adjective means according to an established course, rule or principle; conformed to a type or regular form; acquired. Standard is derived from *extendere;* to spread out, extend; and is used in the sense of that which is established as a rule or model.

Now in the comprehension of the natural conditions and endowments of the human organism, to which horn of the problem are we at once led? Manifestly, not to the normal or standard complete human organism, but to the born, essential characteristic of this organism, if we wish to find common ground of agreement: for here all elements of confusion and error are most completely eliminated and at once do we deal with that which contains within itself, in the primitive type, every energy, function and structure that in larger and more complete expression we find in the acquired organism, the human

body. In short, we can, all of us, come together at the *natura* of the acquired organism, comprehend and appreciate in common the natural endowments and conditions; and from these rise into the larger, acquired, established rules and principles, and agree at last in the spread out and extended expression.

It is entirely unnecessary before this body of intelligent and skilled minds to review and present what is the natural endowment and condition of the mass of protoplasm, or the germinal cell, save to say that therein do we see in its primitive type every energy, function and structure that later we find in larger and more extended expression in the normal or standard type; but for our purpose it becomes necessary to trace the mode, method and causation of this; for therein is contained that to which we wish to refer and especially emphasize, namely, the element of habit in gynecic disease.

We affirm, and have elsewhere in a suggestive way, more elaborately presented, that the energy at work in the primitive type is chemical, and is a direct transmutation from the energy of heat, operating upon known forms of matter, under conditions that have passed from inorganic to organic. These conditions characterized by an independence or freedom under appreciable laws; these being the law of continuity conjoined with the law of conservation of energy. So that, given chemical energy under these conditions of freedom or independence, operating under these laws of continuity and conservation of energy, upon definite elements or forms of matter, the product is protoplasm. This is the causation.

The mode and method is evolution and its conditions, under law. This implies that in the product, protoplasm, the primitive type created by the cause assigned, we must have the germ of every form of energy or activity that may subsequently be manifest in the acquired normal or standard type. The law is the same as for causation; that is, continuity and conservation. Hence to the mode and method of evolution and its rules and principles, previously termed conditions, at work under the primary laws of continuity and conservation, in conjunction with chemic energy and its manifest and latent potentials under the same laws, must we assign the products, function and structure. The necessary product from the first, therefor, being protoplasm in primitive type, from this in conjunction with the second, we must have a still higher product, the germinal cell, and from this as the name implies, obedient to the operation of the same cause, mode and method and the persistent application of the laws of continuity and conservation must we find a product of larger and more complete expression, the differentiated cell, and from this the acquired, fully expanded and spread out expression, the human organism; with all of its contained activities, functions and structure. In short, the normal or standard type.

We affirm, therefor, that the natural endowment and conditions are formed and correctly appreciated only in the primitive type; that the normal and standard are an acquired extended expression and fullness of these; that causation, mode and method being under law and productive of the primitive type, so also on account of law must the normal and standard, the acquired and extended type be a product of this natural endowment and conditions and must be obedient in all activities, functions and structures to the same law and order.

From this we can, without further argument, state our second proposition: That from the primitive to the normal and standard type, the laws of continuity and conservation must hold true, and be ever present, and in conjunction with chemic energy, operating through evolution and its conditions, stand in the relation of causation mode and method, for every activity, function and structure that may find expression in the progression from one to the other.

The law of the conservation of energy briefly stated, declares that the sum of all the energy in a system remains constant and is unaltered by any transformations arising from the action of one part of the system upon another, and can only be increased or diminished by effects produced on the system by effects from external agents; in short, a question of quantity.

On account of the position taken, it is apparent that, as far as the primitive type is concerned, in the effect observed in relation to causation there is no change; it is still, in the progression to the normal and standard, chemical; and in all the transmutations as into heat sensation, assimilation, digestion, excretion or reproduction there is no change in the sum of either individual or collective energy; they are fixed and for its system unchanged. There is change in structure and this alone, but in each do we find the exact reproduction of the primitive type, and this, as before implied, is due to the rule and principle of evolution, but involves no change in the law of conservation. The product contains no more energy or sum and is not altered by any transmutation in it, and there are no added transmutations of energy except what were in the original; it is the exact pattern and type. Evolution calls this conformation to type; but evolution is the mode and method of the product; we are dealing with the causation and the product itself. It is the operation of the law of the conservation of energy, necessitating a mode and method in conformity to what preceded. Parent and progeny are and must be exact and alike in all details and generalities, continue and extend the process and under law every parent to every progeny will be alike indefinitely.

The word habit, comes from *habitus*, meaning state, dress. Do we violate any law of logic or reason when we identify the above progression from cause to effect, by saying that herein do we find the element of habit in relation to protoplasm. We think not; and state our third proposition, that the law of conservation of energy operates and necessitates the operation of the element of habit.

The law of continuity declares that nothing passes from one state to another without passing through all the intermediate states. Such being the case in the progression from the primitive type to the acquired normal or standard type, the law of the conservation of energy must pass to the normal and standard, and operating therein must necessitate the operation of the element of habit.

The element of habit we conceive, therefor, to be that state or dress of protoplasm manifest and observed in any and every stage of the progression from the primitive to the acquired type, as related to energy, function and structure; which insures the repetition or recurrence at any given point in the progression of the attained energy, function, and structure typical of the stage selected. In causation this is chemical in its varied potentials. In mode

and method it is the law of natural selection and, mark you, selection not simply in structure but also in energy and function.

Having traced causation mode and method in the natural endowment and conditions; identified them therein; shown their presence in and from the primitive to the standard type; stated the laws of conservation and continuity, and shown their operation and necessity therefor; identified the element of habit not only in the primitive, normal and standard types, but its necessary presence in each, and at every point in the progression from one to the other; and this necessity and operation being due to the influence of the laws of continuity and conservation; and shown that the element of habit is not only found in relation to causation, mode and method but necessarily passes to the product itself, protoplasm, and is found therein and in relation to energy, function and structure, obedient to the same law and order; the element of habit must therefor be persistent.

This leads to our fourth proposition, that the law of conservation of energy, operating in conjunction with the natural endowment and conditions, namely, evolution, insures persistence of the element of habit, due to the operation of the law of continuity; and not only must be found in and through the progression from the primitive to the standard type, but also in every and any variation that may occur.

From the foregoing, it is evident that in the further consideration of our theme we are confined to that position which considers disorders or disease, be it gynecic or otherwise as a variation in type, in relation to the natural normal or standard, and that this variation is not simply that of structure but also of energy and function. If we apply this to the standard organism or the so-called normal we do so with a certainty of plunging into complexities and confusions that are unending and lead to inconsistencies and contradictions. If we bear in mind the meaning of words, as natural, normal and standard we at once see that we must turn to the *natura*, the natural, in order to find common and sure footing in our conception of variation in type or disease. This may seem simple and unscientific, but certainly the *natura* is the thing itself; is omniscient and omnipresent, and we challenge the objection by saying that it was only when the medical mind evolved the departments of histology, microscopic pathology and bacteriology, that light was manifest and our knowledge of real utility.

Furthermore, we know that the only possible means that are capable of accomplishing a variation in type is that law of evolution termed "change in environment." If this is to be applied, either in theory or practice, to the normal and standard type, we are thrown back into the mysticism and empiricism of the "dark ages" of medicine and are compelled to comprehend cause and effect by symptoms; these may be real or counterfeit. Keeping in mind, therefor, that we are dealing with energy, function and structure as expressed in the primitive type, we state our fifth proposition, that disease is a variation in type acquired by change in environment operating on the primitive type, and that this variation and effect of change in environment is not simply in and on structure, but also in and on energy and function.

This leads to another concept, viz., that an absence of change in environment insures a persistence of the *natura*, or the acquired type, and necessitates a persistence in progression of the type acquired through the stages of evolution to which the organism is or has become adjusted. We perceive, therefore, that the element of habit is and does become a potent factor, and that it is not only to be found in the *natura* in relation to the primitive type, but also in the acquired, be it normal or standard, and in relation to those conditions termed health or disease.

In the application of the foregoing we must keep in mind that it is in relation to energy and function, as well as structure, that our concept is to be utilized. This may seem an unnecessary refinement in diagnosis, yet without it we gain nothing in reconciliation of apparent contradictions and explanations of the enigmas of our experiences.

Who of us is not familiar with those general divisions of disease called functional and organic, and does not feel in the attempt to explain and point out differences that only a part of the phenomena are accounted for? Who of us has not witnessed those gradual modifications and alterations under the effect of some external or foreign agent in which structure or function may or may not be involved, and yet all the symptoms of the most intense organic change be manifest, and are sought and not found? and who of us has not done careful and effective work in removing evident causes for evident effects, and been nonplussed at the persistence of the phenomena we believed would disappear?

We believe the difficulty lies in the fact that we have been contemplating structure; that we have not comprehended the "trinity" of the human organism, energy, function and structure, and have not recognized the possibilities of a variation in type within the limits of the freedom or independence possessed by each in its relation to the others, as well as without. Take, for instance, the first, energy. This, we affirm, is chemical. Witness the lithemic condition; what mild or protean phenomena may be evolved from this chemic variation, and how long it may continue with only a variation in function. Witness the drugging (morphin, chloral, cocain, alcohol) the human organism has sustained, and how long continued this may be and structure remain intact. For function, witness the over-exertion, excessive changes in environment, abuses and excesses in all directions of function, and energy and structure remain typical and competent. For structure not so much can be allowed, but observe the hypertrophies, hyperplasias and atrophies, and not quantity but type and competency remain. And what part or locality in the human organism furnishes greater possibilities, or is richer in observed phenomena in any of these, than the gynecic?

Here better than elsewhere in the primitive, normal or standard type is observed continuity, conservation and evolution from the simple primitive undifferentiated, up to the completely expanded expression, working out the progression with a marvelous capacity and reserve, in all its adjustments; fulfilling law and order in its widest and most exacting demands, to the complex differentiated expression of the trinity; abiding for a season, thereby insuring persistency in law and order and type; thence back again; obedient through all to continuity, conservation and evolution. A poem in energy; a symphony in function; the culmination of a cosmos in structure. And yet there are men in the highways and byways in this day of light and possible liberty from error, whose

concept of gynecology is a speculum, a probe, absorbent cotton and iodin; a pessary; a knife; electricity; drugs; an idea or authority.

Further, in order that we may avoid misconception and confusion in considering the argument, the element of habit, from what has preceded is defined as the adjustment of any one or all the elements of the trinity—energy, function or structure, to the circumstances or conditions operating or quiescent at any given time. It is not the causation, mode or method, but is involved therein; is not the law of continuity, conservation or evolution, but a sequence thereof; being an adjustment in and due to the above, at any given time in circumstance or condition of protoplasm, either as primitive, normal or standard type, it remains in our application to show how this is manifest and accomplished. In this we do not consider it necessary to review what you all have observed and no doubt appreciate in that condition called health, and are acquainted with the variations in type within the limits of the condition, health; but to transfer this whole plan and argument into the domain of disease in every detail may not at first seem correct; yet this is precisely what we must do if we accept law and order in the universe, conceive disease to be a variation in type and believe continuity, conservation and evolution as laws in relation to causation mode and method necessarily passing to energy, function and structure. There must be analogy (we use the word with its specific meaning) or contradiction. If analogy, then truth; if contradiction, then error.

We have said that disease is variation in type; this implies change in environment. Look at bacteriology; here we have presented organisms analogous in all respects to the human organism as far as being a part of the same cosmos; with a natural endowment, obedient in causation, mode and method, energy, function and structure to the same general laws in which the culmination in expression is to a *natura* molded for and adjusted to the same objective point—self; but whose mold and adjustment is a variation in type in its trinity from that of the human organism. These, coming into relation with the *natura* of the human organism (and if we had continued observing the acquired normal standard type they would be still unknown), made possible by the analogy, there is accomplished a change in environment to the *natura* of the human organism, and this change in environment is not simply to the structure but to energy and function, and as a result of this change there is and must be a variation in type in the *natura* of the affected organism.

This variation may be confined to one, two or all of the elements of the trinity; when energy is simply modified there may or or may not be any modification in function or structure. It may be transient or sustained, and may not pass beyond the confines of the capacity or reserve which needs nothing else to dispose of or tolerate the variation. In this variation we place the benign and some possibly pathogenic organisms, and find by this that our analogy carries us direct from health to disease. Passing from the pathogenic organisms that may at some time accomplish only variation in type in energy, to those that always do, and that in a degree beyond the freedom for individual variation in type, we fully enter the domain of disease and find the continuity of the progression unbroken, and the conservation in energy absolute. Accomplish the change in environment as you may, either by direct contact of organisms, agents operating upon the acquired type through the mental, nervous, muscular, excretive, secretive, digestive, assimilative or reproductive tracts; or by agents chemical or physical, the modification is received and spent on and at the *natura*, and the effects accomplished may or may not be transient or sustained and the variation in type in energy can be likewise traced into and from the condition termed health into the condition termed disease, and not a break found in continuity and conservation, and not a single rule or principle of evolution violated. So, also, study function and structure, but time forbids. We think it correct, therefore, to say that change in environment produces variation in type. We see that disease is due to change in environment and that it invariably affects the *natura* of the human organism either in energy, function or structure or in all, and consequently is variation in type.

It is manifest, therefore, if we apply this variation to structure we have only organic disease comprehensible with always function and energy involved. This we know is not true if applied to the acquired normal or standard type; is true if applied to the *natura* or primitive type, but only in relation to each individual cell affected; for we know that structure may be seriously modified in the first, energy and function remaining typical and competent. Apply this to function, and we comprehend functional disease with or without variation in energy or structure. If applied in relation to the acquired type, we have no means of differentiating when energy and structure vary, and have no conception of the possibility of the disorder passing from the domain of the functional to the organic; applied to the primitive type this is readily appreciated. Apply the variation to energy at work in the *natura* and conceiving all the various activities of the acquired type as being transmutations from this, and much of the now incomprehensible functional domain becomes clear; immunities from and predispositions to disease are explained; acquired modifications protecting from or predisposing to variations once experienced are tangible; soil, diathesis, resistance are appreciable; the mysticism and ignorance involved in the neuroses is largely brushed away; slight ailments will obey attention; hysteria, neurasthenia, hypochondriasis, many forms of melancholia, and a host of disorders that the careless medical mind attributes to the "fool patient" will become realities; the possibility of a variation from the condition of health to that of disease, and that, too, without any appreciable cause from without will become manifest; and while we at this time can not give the variation in formulas and may not be able in all cases to correct the variation, we can, until this field has been better explored, in hearty accord with our German co-laborers, make a more correct diagnosis, and damn the therapeutics.

Appreciating disease as a variation in type, we present the last point in our argument, and that is, that the possibility always exists in disease as well as in health for the variation in type to become fixed or adjusted in its relation to the *natura* and its trinity to such a degree that it is more or less persistent. This necessarily implies a persistence if the change in environment is more or less perfect, and so long as this more or less perfect persistence of the change is operative there can be only more or less operation of

another principle of evolution, that of atavism or reversion to the original type, and consequently the disorder must be more or less persistent and appreciable.

The conclusion we reach from this is, that habit being the state or dress or adjustment attained in the *natura*, either in one, two or all of the elements of the trinity, it necessarily must pass to and be present in disease and be one of the elements in pathogenesis, pathology and pathisotherapie.

In illustration, and for the practical part of our paper we wish to present the following, the first of which is variation in type in relation to energy:

Miss A., aged 25, school teacher; five feet four inches; 115 pounds; menstruated at 13; always more or less trouble and for last six years sufferings severe; nostalgia more or less continuously; malaise and ready fatigue persistent; constipation; cephalalgia of top and back of head; vertigo at times; gastric disturbances slight, but explosive at times during menses; heavily coated tongue; skin flabby but not anemic in color; uterus in complete retroversion; density greatly modified, so much so that flexion can readily be produced in any direction; no evidence of any structural changes save slight enlargement of left ovary and moderate fixation of right; easily released; no history of any inflammatory attack at any time and no discharge save at menses; this is normal and good color. The dislocation is marked; uterus at first examination was found impacted between the utero-sacral ligaments, which was readily relieved; the patient declining operation a pessary was introduced, well fitted, gave no discomfort and apparently relieved the relaxation manifest at cervix. This patient has been under observation now for over a year, and only during the last four months has there been any evidence of improvement in the relaxation and persistent slopping of the uterine body over upper arm of pessary. Every means possible was utilized; all symptoms met; tonics and the et ceteras of the gynecologic armamentarium were exhausted and no appreciable benefits attained.

The environment was pernicious, monotonous, effective, and the variation in type was likewise persistent. It was not until we comprehended that this was in energy that we found the key to the situation; structure was certainly unchanged; function was to some extent, but when considered in relation to the *natura* it was not; the type was there but the *power* for active function through structure was not there. Considering, therefore, that the variation was in energy we could find nothing to fit the case unless it was that the chemic modification was that of lithemia. Acting upon this, and persisting for three months, we were rewarded by the first and only evidence of relief, that of general systemic well-being and decided improvement in the relaxation of the pelvic tissues, to the extent at this date of a more normal density of uterine tissue and the pessary now sustaining the uterus in position. But all along the reversion to the original type there was and is now a more or less constant tendency to return to the full expression of the variation. This, we consider, the element of habit. The adjustment of the *natura* to the variation had been so long in operation, so fixed, that in spite of the activities at work, by presentation of changes in environment within the lines of health toward this end, that it is continuously showing itself. The law of natural selection has passed from the limits of health to the domain of disease and is at work in the new adjustment; and we expect to have to contend with this element of habit until such time as the environment for health shall have been in operation so long and forcibly that the *natura* has been brought back entirely to the adjustment of the original type, and the element of habit for disease has become the element of habit for health.

Variation in type in relation to function in pure and simple expression is not frequent, but is usually met after variation in energy and structure has complicated the process, standing in relation of cause to the former and sequence to the latter.

The following case illustrates with a considerable degree of purity the type:

Miss A., age 27; single; brunette; five feet four inches; weight 115 pounds. Gives clean bill of health up to 21 years of age, at which time, following severe mental and physical strain, began to have leucorrhea, backaches, gastric reflexes, cephalalgia; pains the day before and first day of flow, gradually changing to three days before and the several days of the period. Save at the menses and the leucorrhea feels perfectly well, capable for her duties and enjoyments, and would to the casual observer be considered a healthy woman. Examination of the gynesia revealed nothing tangible or without the domain of health in relation to structure or energy. But at the menstrual epoch the picture was radically changed. There was hyperesthesia; decided enlargement of uterus and ovaries; mobility diminished and all the evidences of general pelvic stasis and hyperemia; in short, the type was congestive; here with energy typical and competent, structure unchanged, the action or function passed far beyond the type and we had all the phenomena of the first stage of an inflammation.

The variation in type had reached the point where energy was beginning to yield and this accomplished, structure would not be long in joining in the progression. Those who have had this type to deal with know full well the fixed character of the variation; how the tendency to recurrence is frequently exhibited and how slight changes in environment send the subject back again and again. Here do we see the element of habit.

As illustrating variation in type as related to structure, we point to the traumatisms, and lesions accomplished after long continued operation of variations in type of energy or function. Particularly is it observed in that class who have gone through long experiences of organic disturbance, in which evolution in structure has been accomplished, which in many instances remain more or less permanent. Even in those in which reversion to the original type has been most perfectly accomplished, do we see manifest repeated and persistently recurring attacks in which the type is again and again more or less fully expressed, and that too in the absence of the specific agent that at first produced the variation. This we consider the element of habit responding to the variation in structure. The new state, dress or adjustment is repeatedly showing itself on account of the persistent change in environment maintained by the variation in structure. We wish it understood that in this we do not lose sight of the active specific agents that in beginnings and for periods afterward, and possibly to the end, stand in the relation of cause to effect; but these die out, are disposed of and leave sequences. These sequences are the variations in type in structure which may or may not pass away that we note; and these in this type are the real factors that keep in operation the new adjustment and the element of habit.

For instance, look to the hypertrophies, atrophies, hyperplasias, adventitious and heterogeneous changes in structure, and study the element of habit therein. Who has not observed the aches and pains; the functional activities, the recurrences, the lapses from apparent states of health to disorder after more or less continued experiences of disorder, and after the removal of apparent causes and conditions for the same; the radical therapeutics of the day and in

most instances the gradual and final reversion to the original state and condition of health? How many sensations, aches and pains we meet; the persistence of the menstrual flow and molimen, when we know beyond doubt that the agents for these activities have been absolutely done away with? How often we see the gynesia after prolonged diseases become restored to conditions that the skilled sense of touch knows are within the domain of the normal or standard type, when, with some reasonably sufficient cause the swing back into the domain of the previous experience is so sudden and aggravated that the observer is non-plussed? Who is not familiar with the phenomena of heredity and the climacteric? These are all kindred and can not be interpreted or comprehended save but by the element of habit; and in the progression of disease during the active stages, the host of experiences and evidences that are readily reconcilable and can be intelligently explained are many, and correctly appreciated lead to safe therapeutics. Appreciating the element of habit in health and its possibility and processes in gynecic disease, and comprehending the entity to be a variation in type either in relation to energy, function or structure, one, two or all, and these as related to the *natura* of the organism affected, obedient to continuity and conservation, we are led in the solution of the problems presented, to the rules and principles of *atavism* or reversion to the original type.

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SOME MEDICO-LEGAL FFATURES OF THE SCHNEIDER CASE.

Read before the Medical Society of the District of Columbia, Oct. 10, 1894.

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With the softening influence of time, which modifies all things, our minds are prone to assume the blank state so necessary for calmness of thought and dispassionate consideration that should always be brought to bear on all questions of forensic medicine. It is in this frame of mind, I trust, that we now approach the consideration of a case that was attended by much public excitement.

On Jan. 28, 1893, I visited the district jail, in company with Dr. Godding, of Washington, to examine into the mental condition of a young man under sentence of death for the murder of his wife. Certain features of this celebrated case, but more especially the lunacy inquiry, came within the unfortunate category of those prejudged by public sentiment, regardless of calm consideration of the attendant facts. But the question of guilt or innocence being no concern of mine, judgment may be suspended on this point. Whatever a culprit may be from the special pleader's point of view, to the physician a patient is only a patient whether he be saint or sinner, and the judicial aspect of such cases in no way concerns us, unless the medical facts relate to the law or tend to promote the ends of justice.

As far as I could ascertain the prisoner's antecedents he had led an irregular eccentric life, was addicted to the abuse of alcohol and tobacco, and was unhappy in his domestic relations. A near blood relative had died of spinal disease, another was hemiplegic, another had nystagmus, and the father was a senile dement, being insane before and at the time his son was begotten. The prisoner had a poor common school education and his family were Lutherans.

From the jail attendants and the physician it was learned that the prisoner had undergone a marked change in conduct; from being neat in his personal appearance he had become slovenly and filthy; his manner of talking, from being quick and sprightly, had become slow and hesitating; when addressed he would be apparently forgetful and have difficulty in concentrating his mind upon matters as to which he was interrogated, and before answering would repeat part of the question in a stupid way after the manner of echolalia. He refused food for fear of poisoning, suffered from prolonged insomnia, talked incoherently, especially about a wonderful electrical machine he had invented; frequently yelled in the night that persons were entering his cell, throwing acid upon him, and making attempts on his life.

I found on entering the cell a man of unkempt appearance with pallid complexion, long hair and beard and a morbidly suspicious manner. First inspection showed slender trunk and limbs and thin cigarette-stained fingers. He constantly and aimlessly picked and scratched his hands and wrists after the manner of many patients one sees in asylums. Palpation of the head gave no result, nor was there any marked peculiarity in its shape beyond a slight plagio-prosopia of the right side. There was a slight ptosis of the right eyelid, irregularity of the lower teeth, a narrow palate arch, and an extensive ranula. The superficial veins appeared healthy. There was a brown scar on the left of the glans penis. A quantity of urine passed in our presence showed a large excess of phosphates on analysis.

Various tests for the motility, sensibility, reflexes and special senses were applied. Exaggeration of the patellar tendon reflexes was present, and the prisoner either could not or would not distinguish colors. The circulation and respiration were weak. The pulse was 90 and irregular; the temperature under the tongue 99 5. Owing to the prisoner's stuporous condition and his morbid suspicion, it was a more difficult task to ascertain the limit of his ideas, imagination, will, and moral and affective sentiments. He complained of heat and pain in the back of his head and arms; of excessive itching of the skin; of inability to sleep because of the faces of dim green color on the walls, of whisperings and voices, and of the annoyance caused by persons throwing acid on him and having designs on his life. He also said that attempts were made to poison his food; he talked of the attempt to steal an electric invention, and accused his brother and mother of being inimical to him. When asked if there was anything he wanted he asked for medicine to make him sleep. Numerous questions put with a view to leading up to the prisoner's mental weak point failed to elicit much beyond the fact that his memory was apparently weakened, that he was suffering from phrenasthenia, and that he lacked the knowledge and shrewdness to dissimulate the systematized and fixed delusions which were ground out with hand-organ regularity at each visit. At one of these visits the prisoner showed not the slightest sign of emotion on the arrival of his mother, nor was there on several occasions any change in the beat or frequency of his pulse when suddenly asked about killing two people, one of whom was his wife, and that he was soon to be executed therefor.

With Dr. Godding and Dr. Brush, I did not think it possible for an ordinary ignorant man, even with special training in insanity, to feign successfully the symptoms observed. Malingering tests failed to lead the prisoner into any gross error, even after prolonged and varied conditions of examination.

In view of the foregoing facts and my wide experience with frauds and malingerers among thousands of soldiers, sailors, pensioners, and others, I felt satisfied that the prisoner bore the characters, physical and psycho-physical, of degeneration, of aberration, of constitutional abnormality sufficient for recognition, and I signified my willingness to go into court and testify as to the existence of paranoia. Besides, the symptoms observed were similar to the clinical picture of that affection as given by more than fifty authors whom I had previously consulted.

The inquiry accordingly came off before three judges, and on this occasion I had the honor to differ with my friend, Dr. Dana of New York, who was by far the most intelligent, conscientious and well informed of the experts employed by the adverse party.

The inquisitorial procedure conducted by the three judges was a long one; some twenty-nine witnesses being produced on either side, and the testimony was voluminous. To review it here at length would manifestly be out of place; but the legal procedure

adopted and the manner of getting medical evidence are open to damaging criticism, and do not strike the dispassionate observer as "being the wisest method of obtaining light upon the alleged insanity of the defendant."

At the outset of the inquiry, legal opposition suggestive of unfairness, was shown in the motion to exclude from the court the expert medical witnesses for the defense. After deliberation on the part of the judges, who were presumably without predilection and uninfluenced by the sentiment of the hour, this motion did not prevail. While the experts for the prosecution were given every opportunity and did cross-examine the experts for the defense, no such privilege of impeaching the skill and testing competency was allowed the defense, who submitted in writing eighty-four proposed questions which it was thought related to the facts in issue and tended to test the accuracy, veracity and credibility of a document alleged to give an enlightened report of the defendant's condition. Touching these questions, Chief Justice Bingham remarked, among his reasons for not permitting them to be asked: "It would seem to us that each and every one of them is in the nature of a critical, technical and rigorous cross-examination."

Not to comment at length upon the evidence adduced by the various witnesses, it was satisfactorily shown to many persons, among them members of the jury who tried the case in advance of the lunacy proceedings, that the weight of testimony bearing upon the prisoner's insanity was greatly on the side of the witnesses produced to prove the theory of his counsel; namely, "that the shock of the sentence of death, coming after the prolonged strain of the imprisonment for four months and the strain of the trial, acting upon a mind predisposed to disease, operated to dethrone his reason and render him insane, so that he is now unable to appreciate his present situation as a person condemned to death." Even the witnesses for the prosecution clearly established the existence of heredity, which is one of the only two factors that enter into the causation of all cases of insanity. In fact, the neurotic antecedents were so well shown as to remove any doubts as to the defendant's mental condition had there been such, and on being recalled, I testified substantially to this at the conclusion of the hearing of the inexpert testimony. So well indeed, do the best modern authorities recognize the complementary relations to each other of heredity and stress in the causation of insanity that it is now spoken of in mathematical terms as a function of two variables; and one may as well deny the fact that twice two make four as to doubt the two-fold causes of insanity. Notwithstanding this, and the further fact that a considerable part of the testimony for the prisoner was addressed to the mental condition of his father and to the erratic conduct and abnormal behavior in early youth of the son, Judge Hagner, in delivering the opinion of the court, pointedly disregarded these facts and characterized "these statements as comparatively unimportant."

In the course of the inquiry many questions, the purpose of which seemed irrelevant, were put by the prosecution in regard to the use of tobacco, and a sphygmographic tracing of the prisoner's pulse was introduced. The question of consumption of tobacco may be dismissed as immaterial and insignificant, since it was proved that the prisoner never used more than a quarter of a pound a week, and when the supply was entirely cut off he improved in appearance and in the readiness with which he replied to questions. The inference to be drawn from such improvement is manifestly against the theory of feigning. A simulator would attempt to retain as far as possible the state which he had manifested during the medical examination and during his presence in court. While the nervous system of many persons is seriously affected by tobacco, many old and inveterate users have never been affected. A letter in my possession from a gentleman of 84 years, said to be one of the most inveterate users of the weed to be found in the whole State of Virginia, shows an absence of tremor and a clearness that would do credit to a school boy. While the examination was in progress I produced a sphygmographic tracing, and on asking one of the physicians employed to assist the court, whether the tracing in question was that of a man or some lower order of animal it elicited the reply: "I don't know." It was further asked: "Assuming the tracing to be that of a man's pulse, does he or does he not smoke or use tobacco?" To this the same reply was made, when I stated that the tracing was one of my own pulse and that I did not use tobacco. In defense it was testified that in the diagnosis of insanity the sphygmograph is of no absolute significance; that it is a mere scientific toy, and that any results obtainable from it may be ranked among the probabilities of science. Equally worthless was the testimony regarding the drawings, tracings, and the civil service examination papers introduced to show the work done and the employment of the defendant. As documentary evidence they showed a lower order of merit than is often found among idiots and insane, many of whom do creditable work as artists.

The inference to be drawn from civil service examination is, to say the least, extremely problematical. An instance has come to my knowledge in Washington of a contest in which among the applicants examined were a recent graduate of the United States Naval Academy and a person just from a lunatic asylum. On awarding the results of the examination the lunatic was recommended for the prize. As is usual in such cases, the presentation of the medical evidence proved unsatisfactory, more from the manner in which it was obtained than from the inherent difficulty of the case. Each counsel striving to make the testimony aid his own side thereby forcibly impressed upon it a blurred and distorted character, and each took just what suited his purpose. Concerning the report of the "three physicians of known eminence" employed to assist the court in the examination, a prominent member of the Washington bar, who was a disinterested spectator, on hearing it read remarked: "That document is more like a special pleader's brief than the expression of expert opinion." Since the makers of the report were presumably honest, though mistaken, I will not say that I share this sentiment as to its unilateral character, although some points of the report call for comment and criticism.

Among many irrelevant and immaterial statements, which could not be construed as evidence of either sound or unsound mind, independently of other matters connected with this case, the medical assessors, delegated by the judiciary, described quite truthfully the defendant's condition when they say that: "During our examinations he manifested a stuporous

apathetic condition and a vacuity of mind such as occurs in certain long standing insanities under other conditions." He "avoided the eye of the observer;" was "apparently oblivious to the presence of any one;" . . . "his general attitude one of suspicion;" . . . "his irrelevant and illogical (inconsistent) manner;" his "stupid behavior and far-away look." We are also told that they were not able to surprise the defendant in any way out of the constant expression of his delusive ideas; for the report indicates that on recovering from the effects of ether he "at once took up his complaint of alleged persecution and delusions;" "said he was being starved and called upon his mother to bring his food." The probative force of such facts go to show that the defendant could not keep up his feigning in such circumstances; but it requires greater acumen, on the part of any medical man who has ever seen a patient anesthetized, to see the significance or relevancy of the statements that "when he was given nitrous-oxid gas and ether he exerted an extreme amount of muscular vigor," that he "took ether evincing much cunning in holding his breath and suddenly turning his head." Further occasion may be taken to mention in terms of strongest condemnation this method of obtaining knowledge. The best authorities are against using alcohol, ether or any anesthetic or intoxicating drug for the purpose of obtaining an avowal from a supposed simulator. The expert has never the right, in order to insure his diagnosis, to impose suffering on any individual intrusted to his care or to put him in danger. By doing so he assumes the rôle of judge and inquisitor, instead of confining himself to his proper function. The well-equipped expert has enough means at his disposal to obtain exact knowledge without recourse to barbaric and dangerous proceedings which morality and contemporary science unite in condemning with the same severity as the conduct of a judge who would re-introduce the ancient procedures of the rack and thumb-screw.

If the use of anesthesia was of any probative value in this case, the proof furnished thereby was rather in favor of the defendant. A short time after the first test of this kind, I found him smelling strongly of ether; he had an excoriation on the end of his nose, and he showed a degree of exhilaration and rationality that I had not seen before. Like the improvement noted after withdrawing the prisoner's supply of tobacco, it is difficult to reconcile this fact with the theory of feigning.

We are further told in the report that the "fixed systematized delusions, which have been prominent here, are evolved out of preceding stages of insanity . . . requiring many months and years for development," and further, "we do not believe that from the manifestations testified to, a diagnosis of that form of insanity known as paranoia of Krafft-Ebing and his followers is possible." This statement utterly ignores all the prisoner's neurotic antecedents, the erratic conduct, abnormal behavior, and even insane conduct, which were testified to by numerous witnesses, among them several for the prosecution. To use the language of the court: "With one accord all these witnesses agree that from his earliest youth, preëminent over all his other vices was his addiction to falsehood; that his whole talk was a gasconade of impossible exploits and ridiculous lies."

Dr. Beatty testifies to the belief that the prisoner was crazy when he first saw him in jail, while Dr. Walsh, who had known him a long time, testified as to his general reputation for "being off and peculiar as a youth," and expressed belief in his mental unsoundness.

The family clergyman spoke of him as a person under "a long standing mental cloud;" another witness as a "dime novel hero;" another, of his impulsive and reckless actions and want of reflection; another, of his being different from other young men, an untutored child of nature, and of his moral depravity. One witness called him insane, a fool, an idiot and an arrant coward; another spoke of "grandeur and falseness as the general character of his talk;" while the jail matron testified to his extravagant statements as to the horses he owned, and to his electric invention, and excited manner.

Witness Paine said that the prisoner talked of his inventions and machine the first day in jail and frequently sat up all night. Witness Woodward, that the delusion as to the patent was noticed by him "along in the fall and last three months," and that a gradual change has come over the prisoner, who was torpid and sleepless. Russ, a prison attendant, that he noticed oddity in the prisoner before his wife died, also a change after conviction, and the persistency of the alleged insane manifestations. Peacock, that in July he talked quickly, that lately he talked slowly, etc., all of which manifestations show the forerunners of the prisoner's mental condition and make it quite possible to diagnosticate paranoia. Aside from the gradual development of the manifestations testified to, the medical advisers of the court totally ignored or were ignorant of the distinction of the best authorities between acute primary and chronic secondary paranoia, and they inadvertently spoke of this form of insanity as that of "Krafft-Ebing and his followers," when in reality some twenty-five authors before his time have written of this form of mental degeneration as far back as Vogel in 1764. Moreover, Westphal described the *acute* form as characterized by the sudden explosion of hallucinations, especially of hearing. In this case delusive transformations of hearing were one of the features; but as we cannot, except in an ejective way, get into another person's brain to see his mind-stuff and hear what he does, it is scarcely possible to testify in a court with any degree of accuracy as to the existence or non-existence of such hallucinations. However, it is well known to persons skilled in penal matters that among convicts becoming insane, hallucinations of hearing and delirium of persecution are common forms of insane manifestation.

Another point in this case is that the emotional condition of the patient appears to have been ignored by the experts for the prosecution. It is contrary to all experience that a sane man, fully cognizant of his surroundings and of all that is going on about him, and who is feigning insanity, can control his emotional nature and prevent an increase of pulse under circumstances that would cause increase in any sane person. On this point the report says: "As to the importance attached to the condition of the pulse and the behavior of the individual when startling evidence is introduced in his presence, or when he was reminded of his position, we would say that we attach very little weight to variations in pulse as a test for the examination of feigned insanity, and

in making this statement we believe that we are in accord with all modern authorities."

In the first place this statement is inconsistent with the introduction into the court of a sphygmographic tracing to show the condition of the prisoner's pulse; then the pulsatile phenomena of different regions of the body have been known to furnish infallible indications since the time of Galen; and in the earlier days of American medicine, a resort to the state of the circulation was regarded so much of a crucial experiment in determining the proposition whether a man be or be not laboring under mental alienation, that of two men condemned to death in 1794, one of them alleged to be feigning was declared insane after medical inspection; the pulse test placing insanity beyond the possibility of a doubt on comparing the pulse of the insane victim with that of his sane comrade. On the strength of this representation by the medical commission the prisoner was respited and subsequently pardoned by General Washington.[1]

As to the third assertion of the court's advisers, that of their being in accord with all modern authorities, such is not the fact. On the contrary, after examining several hundred of the more modern authorities bearing on this subject, I find that scarcely any fact of modern clinical research is better established than the demonstrable changes in the pulse following transient changes in the central nervous system, such as that contributed by the play of mental or emotional activity, and that this motility of the state of muscular contraction of the arteries is so constant in persons of vigorous health that its absence is considered a sign of diagnostic value.[2]

The number of physical and psychical influences that can be clinically and experimentally shown to cause variation of the pulse could be mentioned at great length. Who has not experienced increased pulsation of his heart on meeting some familiar friend? Every practitioner knows that his presence hastens the pulse of his patients, especially that of women, children and nervous persons. Brain work, calculation, music and sensorial excitations generally accelerate the pulse, while different emotions give to it a vivacity sometimes very remarkable. After an excess of anger the pulse has been noticed to go up to 108. According to some authorities, pain makes it go up to 86 and 100 pulsations in a minute. A series of observations on medical students has obtained 120, 124, 128, 130, 134 beats a few minutes before examination. The influence of the generative function over the circulation, recognized by Galen, when he discovered by the pulse the malady of Justa, wife of the Consul Boëce, and who had a passion for Pylades, is just as potent to-day as it was a thousand years ago.

That the pulse varies in mental alienation according to the kind of insanity is therefore a well-established fact; and how three intelligent men could certify to a prisoner's being cognizant of all that was going on and listening to testimony the most damaging to his case without a momentary effect on his pulse is beyond all comprehension.

Other minor and irrelevant points touched upon by these "three physicians of known eminence" might be discussed at great length; but it suffices to notice that they report "no evidences of any external structural alteration," and "nothing whatever abnormal was noted physically." Although they mention having found "the head small and an elevated palatal arch such as is frequently found in ordinary neurotic individuals and certain habitual criminals and the tongue pointed to the left side," yet we are not shown how such facts bear upon the correlation between anatomic structure and crime. In making this "exhaustive" examination bearing upon the organicity of crime, its anatomic nature, and degenerative source, why did they not find, or if they did why fail to report, a metopic cranium, facial asymmetry, ptosis of the right eyelid, an extensive ranula, irregularity of the inferior dental arch, dullness over the base of the right lung, and a scar on the penis?

In their general conclusions the report says: "There seem to have been no serious physical changes whatever in his condition;" "an absence of physical deterioration;" "no corresponding appearance of physical deterioration of any kind."

Let us see how the *post-mortem* corroborates the pathologic notions of the "three physicians of known eminence."

Shortly after the execution, the necropsy was conducted in Baltimore by a well-known Washington pathologist and myself. We found the usual cadaveric rigidity in a poorly developed body somewhat emaciated. There was no evidence of seminal emission that sometimes occurs after hanging. But little hemorrhage followed the incision. The brain on removal was dryer than usual, the pia was sticky, and there were minute patches of opacity on the left side. The veins were moderately full. The dura was not abnormally adherent. The right side showed the same stickiness with the minute patches. The left vertebral artery was double the size of the right, and both posterior communicating arteries were larger than usual. There was no sign of disease of the vessels, although the base of the brain was slightly soft. The right motor oculi nerve was narrower than its fellow. The spinal substance was quite soft, possibly a *post-mortem* result. The fluid in the ventricles was slightly tinged with blood, but the ventricles were apparently normal. There was some hardening about the membrane not adherent to the cortex with osteophytes in the dura.

The normal quantity of fluid was found in the thoracic cavity. The lungs, slightly hypostatic and emphysematous, showed numerous pleuritic scars and adhesions with a tubercular deposit in the upper part of the right; but there was no pulmonary apoplexy such as is common to asphyxia.

In the pericardium was an abnormal quantity of fluid. The cardiac cavities were moderately filled with blood and the valves appeared normal, except the tricuspid, which was increased in size to the extent of readily admitting the tips of the four fingers. The left ventricle was thinner than usual and the right heart was subnormal. The spleen was soft, with prominent Malpighian bodies and a smooth capsule. The kidneys contained more blood than usual. The capsules, not readily removed, were more adherent than normal. The cortex was normal in width and thickness. Urate deposits the size of a large pea were found in the apices of the pyramids. In the bladder was found a half ounce of turbid urine, but the walls showed no evidence of disease. On the left side of the glans penis was a brownish scar. The

[1] American Journal Medical Science. Vol. VIII. 1844.
[2] Arch. für Anat. und Phys. 1883. Superabund pp. 17–19.

intestines contained little more than gas. The mesenteric glands were extensively diseased, being enlarged, gray and softened, probably from a deposit of tubercle. The liver was normal.

Microscopic examination of the brain gave but negative results. The same may, however, be said of the brains of many patients who have died of general paresis, while many of the alleged pathologic findings of histologists have been equally observed in the brain of a calf.

During the progress of this lunacy inquiry, much was heard from various sources declaring the case to be an exceptional one. The public, who by the way were excluded from the court, were informed: "This is the first case on record that a man's mental condition has been inquired into because it was claimed that he became insane after the sentence of death had been pronounced upon him;" while Judge Hagner, who delivered the opinion of the court, in speaking of the weight to be given to the three experts who testified on behalf of the prisoner, says: "They all admit the case presented here is exceptional." Both assertions are absolutely contrary to fact and this is easily proved. It is a matter of record that in 1794 two men were sentenced to be hanged for treason, and one of them it was thought feigned insanity, whereupon a commission consisting of Dr. Shippen, Dr. Griffin and Dr. Earle, appointed by General Washington to inquire into the man's mental condition, reported him to be insane. The condemned man was respited and after the popular clamor for his death had subsided was pardoned. A notable feature of the case was the pulse test, which it was said placed the condition beyond the possibility of a doubt, on comparing the pulse of the insane victim with that of his sane comrade.

Another case almost the counterpart of Schneider's occurred a year previously in France. A man having killed two people, his condition became such as to call for a medico-legal report on his mental state. The inquiry showed that the prisoner's derangement was in no way connected with the commission of his crime. He was subject to alterations of memory, which would be lost and recovered some hours afterward. His mind was most of the time in a profound torpor. He had fixed ideas, delirium of poisoning, and refused food. Coupled with these symptoms was the circumstance of neurotic antecedents, which warranted the diagnosis of that form of delusional insanity known as paranoia. Instead of the sentence of death being carried out, the prisoner was sent to an asylum.[3]

Newspapers are not supposed to be scientifically accurate, and lawyers may be pardoned for distorting medical knowledge with which they are imperfectly acquainted, but when a learned judge from the bench delivers an opinion with the sanctity attaching to a judicial document abounding in *scientific* quotations from the Bible and the classics, and yet misstates a fact in forming his conclusion, what is the proper remedy?

As one of the experts who testified for the prisoner, I regret to say that Judge Hagner was utterly mistaken. I absolutely deny that I have ever admitted that the case herewith presented is "an exceptional one and out of the range of ordinary experience," and I challenge any one to read the typewritten copy of my testimony on the occasion named and find even the slightest intimation of the case being "altogether exceptional."

To conclude this unhappy affair it may be asked, Was the medical examination of the court's advisers "exhaustive, thorough and complete," as they claim in their report and supplemental report? Did they fully weigh all the circumstances of the case? Was the method of procedure the best suited to promote an inquiry not influenced by predilection or sentiment of the hour? And was or was not the final result judicial murder? The answer to these questions I leave to the calm and disinterested intelligence of thinking persons, many of whom may see in this case a striking instance of the bungling application of medical knowledge to legal purposes.

[3] Rev. Med. de l'est. October. 1892, p 609.

INTESTINAL INDIGESTION.

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To treat of intestinal indigestion separately from gastric indigestion would seem almost impossible, since it can not well be conceived how the former can exist without being a sequence of the latter, as gastric indigestion invariably precedes intestinal indigestion and is therefore always a factor which mingles its phenomena with all that which follows in its wake.

If proteolysis is not finished in the stomach and duodenum, the substances which have not run the gamut of complete proteolytic disintegration must pass the remaining intestinal length untouched, or undergo putrefactive changes at the instance of bacteria which provide the necessary elements, and hence, abnormal and deleterious substances arise which to a greater or less extent furnish fuel for general systematic disturbances. Intestinal putrefaction is then in its incipient stages, not due to a pathologic condition of the tube below the stomach and duodenum, but is dependent solely upon errors of gastric and pyloric digestive processes.

When any quantity, however small, of proteid substances escapes gastric digestion and also the action of the trypsin enzyme, they are at once attacked by certain bacteria which through putrefactive processes change them into aromatic bodies, viz., indol, skatol, skatol-carbonic acid and phenol. Excess of food ingested will universally induce such putrefactive processes which in infancy and childhood is exhibited in the bowel diseases of early life, and can, with reasonable certainty be differentiated from deflections by other causes, by the odor and appearance of the dejecta.

In adult life, the subjective symptoms are available and form a most interesting chapter of complaints which are mostly dismissed after being labeled with the hackneyed term, "biliousness," whatever that may mean. A coated tongue, a sluggish mind, a headache, a restless night, a treacherous memory, a hot, feverish, thirsty stomach, a bitter taste, a want of appetite, a fit of constipation, are symptoms which usually subject the liver, a very innocent but terribly abused organ, to a course of merciless therapeutic flagellation. In the light of our present knowledge of the functions of the liver it would be wise, I think, to float out our therapeutic craft in waters where deep sea soundings are more familiar. Its chemico-physiologic work is to a very great extent masked to us as yet, except as by infer-

ence when we analyze its by-product, the bile, and note the offices performed by its several constituents. This phase of intestinal indigestion which, as I have said, is due to the primary action of certain bacteria on albumen and albuminoid substances which have slipped past the duodenal gateway without receiving the vito-chemic touch necessary to render them innocuous is intermittent and transient, and of little consequence until by constant repetition it becomes a menace to the general organism. The toxic elements generated in this process sooner or later render glandular and cell environments of the intestinal tube altogether unhealthful. The air they breathe, the water they drink, and the food they eat, are charged with a miasm which absolutely forbids a healthy reaction, hence most complicated and decidedly serious pathologic conditions arise. The final or end products of primary bacterial action on the proteid substances are carbon dioxid, water, ammonia, nitrites, hydrogen and sulpheretted hydrogen. All taken together are really abnormal products in contact with tissues which will, for a time, resist their deleterious influence, but finally are compelled to succumb.

Another, and indeed the chief source of intestinal indigestion arises from the inability of the tube below the pylorus to successfully cope with the relatively enormous quantities of carbo-hydrates and hydrocarbons that are daily and continually ingested. The argument has been made from almost every conceivable view point except, as a matter of course, from the true and logical one, that man is or should be a vegetable and fruit eating animal. Just a little thought and attention will enable you to discover that every such argument is based on pure sentimentality. I venture the assertion that our evolution has not yet carried us to that point of ideal construction where we can live continuously on vegetable foods and fruits without placing our health in constant jeopardy. It will only be necessary for me to refer you to the arrangement of the teeth in the human subject and invite a comparison with vegetable and meat eating animals; then the fact that the stomach is almost wholly engaged in digesting lean meats, and similar substances, so utterly rules the whole controversy out of court as to render further reference to it wholly gratuitous. The structural arrangement of the small intestine from the pyloric to the ileo-cecal valve exhibits a degree of sameness, which is indicative of the fact that if the normal wants of the system were alone supplied, and the sense of taste was not intemperately gratified, its work would be relatively simple. The muscularis of the intestinal tube like the heart and all the involuntary muscle structures is of mesoblastic origin and is energized and controlled by the ganglionic nervous system, hence, when digestive errors become chronic and ensuing pathologic changes take place, similar structures throughout the whole organism suffer, first in sympathy, then after awhile take on a community of degenerative changes which are traceable to this single point of deflection. Perfectly normal intestinal digestion demands a perfectly normal anatomic apparatus with an unhindered physiology. The downward peristaltic action must be continuous and just sufficient to keep the contents in constant motion. The *valvulæ conniventes*, glands and villi, must be perfect in structure and arrangement so that they shall offer a normal resistance to the movement of material through the tube. The normal stimulating substances within the tube will induce a flow of intestinal juice just sufficient to change and convert such substances into absorbable material; thus alternating periods of rest and activity which go together to make up a cycle of digestion will proceed absolutely without a sign or note to indicate the character of the labor being performed. In fact, a sensation other than the consciousness that the body is at ease and the mind is active, is a signal carrying with it a warning which, if intelligently interpreted would be efficient in avoiding a host of complicated diseased conditions.

Starches, fats, fruits, and sugars, do not excite fully, in fact only feebly, the flow of digestive juice in the stomach; the gastric fluid has no action whatever on this class of foods other than to assist in reducing them to a partial fluid. When the stomach contents have been made fluidic, the pyloric valve relaxes and the small intestine receives the material; it is stimulated and at once begins to pour out its secretion which becomes more and more abundant, increasing in amount up to the sixth or seventh hour of digestion. The whole mucous membrane becomes injected, and with the drops of mucus that are excreted we find an abundance of exudative epithelium. An abnormal amount and kind of intestinal fluid can be provoked by over-stimulation. Let there be constantly present an over-quantity of acetic acid and the result is an over-secretion of intestinal juice. This acid has the power to keep the mucous lining constantly injected and to keep the secreting cells working perpetually. This factor alone is sufficient to induce an intestinal catarrh. The acid is a fermentation product which in normal digestion is not present as an excess. This and other acid formations are in excess when the sodium carbonate, a constituent of the intestinal juice, is insufficient to completely neutralize them at the point when absorption is about to take place. While it is true that the contents of the small intestine are necessarily acid, it is nevertheless important that they shall not be excessively so. The pancreatic diastatic enzyme will form maltose, but is unable to further reduce this complex body. The burden is shifted to the maltose-converting enzyme of the intestinal wall, at which point failure to render it into the simpler menosaccharides, results in the formation of ethylic alcohol which by the action of mycoderma is converted into acetic acid. I have referred to this as one of the sources of excessive formation of acetic acid in the small intestine. Another very important source is when over-quantities of starchy foods are taken. Many of the starch granules pass into the small intestine with the cellulose covering intact. They attract to their interior a molecule or two of water which furnishes the full complement for chemic disintegration. The resulting products are alcohol, acetic acid, carbonic acid gas, and vinegar plant. Finally the carbonic acid gas bursts the covering membrane of the starch granule and sets free the contents. These act as irritants to the intestinal mucous membrane, keep it constantly over-supplied with blood, which by and by results in thickening of the mucous membrane, interstitial exudate deposits in the commencement of the lymphatics, paralysis of the intestinal villi, finally the submucous connective tissue structure is infiltrated and thickened, and the whole muscular structure undergoes vital changes. The inferior

ganglia of the solar plexus becomes paretic, hence a constant production of intestinal juice which is impoverished in the elements which possess digestive potency—it consists almost wholly of water and a viscid sticky mucus; and now we are in the presence of what, in my opinion may aptly be termed the completion of the first stage of chronic intestinal indigestion. When the villi are paralyzed in consequence of their constantly being bathed in carbonic acid gas, a product largely resulting from the destructive fermentation of both the carbo-hydrates and hydrocarbons, they lose their power to consciously select such food elements as have already been prepared for passage into the general circulation and readily accept everything that they happen to come in contact with, thus rapidly vitiating the general blood stream. The peristaltic movement is inhibited and after a time is completely paralyzed, when the constipation which is universally an accompaniment of this stage of intestinal indigestion ensues, bringing with it, its concomitant train of effects. This stage of the disease may and often does, last for many years, rendering the patient more or less an invalid all that time.

The second stage of intestinal indigestion presents quite a different, and altogether a much more serious pathologic picture. The whole lining membrane of the intestine is now thoroughly catarrhal, its epithelial investment is no longer capable of performing its allotted work with any sort of regularity and normality. The villi are practically paralyzed and entirely cease selective absorption; the whole glandular structure is undergoing degenerative and thickening processes, the ileo-cecal valve is paralyzed, the cecal end of the colon now fails in its peristaltic movements, the valvular opening to the appendix is permanently relaxed, admitting into the tube whatever may be in the vicinity of its mouth, hence the frequency of appendicitis. The colon becomes thickened throughout its entire structure, the colonic valves become lengthened and thickened. Alternating constipation and diarrhea are symptomatic conditions which to a greater or less extent are always present. The abdomen is now constantly tympanitic since digestion proper is greatly enfeebled and the abnormal fermentation processes have full sway. The spurts of diarrhea are characterized by large, yeasty, foamy, gaseous discharges, generally preceded by a sharp cutting pain. The diarrhea generally lasts for one, or at most two or three days, when it is again succeeded by a fit of constipation. The danger of stercoremia is now past as it belongs to the constipation which is so prominent a factor in the second stage of the disease. Other and decidedly serious complications will arise during the second stage of intestinal indigestion which can only be here referred to in a general way; however, the tracing is clear and distinct and without a doubt the pathologic conditions which express themselves under many and divers names have their origin and etiology in the host of digestive errors which follow in the wake of this stage of the disease.

There is no way by which a distinct line can be drawn between the first and second stages of intestinal indigestion, as in many cases the conditions overlap each other. We find at times severe and obstinate constipation in company with well advanced pathologic expressions of the second stage, or again, we find easily provoked diarrheal attacks early in the first stage. The transmitted constitution and the environments will largely control the way in which the diseased conditions express themselves. Probably the most prominent disease which I believe, independent of heredity, depends upon wrong digestion and mal-assimilation, is consumption of the lungs. Through the vitiated blood stream all the organs of the body are badly nourished; the soil, so to speak, is prepared for tubercular and fibrous degeneration; a slight cold, over-fatigue, or any other depressing inflence now acts as a precipitant, and the disease is established. Consumption of the kidneys, so-called Bright's disease, in its various forms depends upon an antecedent constitutional error. The nervous system is the chief sufferer, and very early in the course of the disease begins to resent its environments by phenomena which should be, in fact are, symptoms which very clearly point to the continuity of causation and uniformity of the general law which induces them. The diversities noted in disease of the nervous system are simply diversities of operation and when traced by the law of synthesis will as certainly lead up and back to the digestive system as the needle points to the pole. The much written of, but poorly understood condition that now masks under the appellation of neurasthenia, will yield up its scepter quite readily when attacked intelligently and persistently from the ground where digestive errors exist. I think it is indeed quite safe to assume that in every case of so-called neurasthenia, the stomach was the first to indicate a sense of systemic inharmony; following this in logical sequence came auto-infection which readily accounts for the mental and other phenomena which characterize neurasthenia. The ataxys, cord and brain scleroses, of whatever peculiar type they may be, are to me logical outcomes from this stage of intestinal indigestion. Probably the most convincing proof of this statement lies in the fact that a thorough course of treatment directed to the relief and betterment of the digestive system will, if properly conducted, dispel many of the acute symptoms in a few months. In tabes dorsalis, the pains and girdle sensations disappear, as I have said, in a few months; in fact, I have seen the knee jerk restored, the patient could stand on one foot with eyes closed, could walk backward, and in short was so much improved that he could negative every classical test.

The third stage of intestinal indigestion is so vast and so far reaching as to make it altogether out of the question for me to do more at this time than to simply call attention to the fact that in truth there are these three general divisions. These may again be subdivided and classified, but I hold that the most simple classification is the best, as so much refinement in the grouping of symptoms and factor classifications will surely lead to confusion, and possibly to much harm; that many will be led to the treatment of symptoms and to the neglect of the potent force which is the active power in their production.

In the third stage we have a large grouping of diseases which, when studied from this view point arrange themselves in most orderly sequence around their cause. They mainly consist in such forms of pathologic action as result in speedy dissolution, as for instance, hasty consumption of the lungs, the forms of Bright's disease that run a rapid and fatal course, and consumption of the mesenteric glands. Many if not all, the rapidly fatal diseases of the nervous system belong to this grouping. Another

form of expression is the reduction of the general systemic resisting power which so often is exhibited in attacks of acute affections. We find these patients accepting acute diseases readily and frequently dying without presenting, objectively, an adequate cause.

I think it may be taken as a statement of fact, that if the whole digestive system was made a matter of careful consideration, its relation to every organ in the body intelligently worked out, its needs and normal wants alone administered to, the existence of disease could be minimized and such as did exist could be scientifically and intelligently treated.

I have purposely omitted in this paper, except a bare hint, all that pertains to the offices of the colon. In this, the field of possibilities is so extensive, there is so much to say, that any attempt to include it in a single paper would result in a dwarfing of the whole subject. I simply wish to add, in conclusion, that any form of treatment instituted for the relief and cure of intestinal indigestion must necessarily include a careful consideration of the stomach and colon; very little if any amelioration of symptoms will result unless they are both rationally included. The colon is within easy reach *via* the rectum, and it has been my experience that colonic baths properly medicated are immensely useful in the general treatment and care of patients suffering with intestinal indigestion.

A CASE OF FRACTURE OF THE THYROID CARTILAGE—RECOVERY WITHOUT TRACHEOTOMY.

BY THOMAS B. EASTMAN, A.B., M.D.
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Of the thirty cases of fracture of the thyroid cartilage reported by Durham, but ten of these recovered and most of them after a tracheotomy. Indeed, most authorities unqualifiedly condemn any delay in operating, Cohen saying: "Unless forestalled by precautionary tracheotomy and insertion of a tube, suffocative phenomena may intervene at any time from edema, displacement of fragments, or occlusion of the caliber of the air tube with blood clots."[1] He further says, "better far that an unnecessary tracheotomy should occasionally be performed without detriment to the patient than that a number of cases should be allowed to terminate fatally for the want of it."

Stimson says:[2] "It is not safe to wait until it (dyspnea) has become extreme, for its increase at the last is often so rapid and so sudden that death takes place before relief can be given. It is therefore the part of prudence to interfere early and before the interference is made actually necessary by the defective breathing."

Hunt[3] recommends tracheotomy when bloody expectoration or emphysema accompanies the other symptoms. Hamilton, however, counsels waiting until respiration is seriously interfered with. I desire to report a case of undoubted fracture of the thyroid cartilage recovering without tracheotomy, and thus add one case to the limited number which have recovered without operative interference.

[1] International Encyclopedia of Surgery, Vol. v, page 255.
[2] Fractures and Dislocations, Vol. i, page 298.
[3] American Journal Medical Sciences, Vol. li, page 380

At no time during the first few days was I certain that an operation would not prove necessary, yet I was determined not to interfere until it was demanded by symptoms graver than were at any time present. I believe that the result justifies my course.

On Dec. 14, 1894, Mr. K., aged 38, foreman in a foundry, was struck in the "throat" by a heavy piece of timber hurled from a buzz-saw at which he was working. The timber also cut a gash in his chin which had been sewed up previous to my first examination, some six hours after the accident, when I found him with a temperature of 99.6, pulse 86, respiration 24. There was almost complete aphonia, dyspnea and cough which gave the patient excruciating pain. At each paroxysm of coughing he ejected bloody mucus from the mouth. Dysphagia was complete, even an attempt at swallowing saliva giving him much pain. His face was livid. The skin was discolored and the tissues about the larynx much swollen. Inspection showed that the pomum Adami, rather prominent before the accident, was wellnigh obliterated, and that the thyroid cartilage was displaced to the right. Manipulation showed abnormal mobility and on pressure inward the patient made me understand that he felt something stick him. A diagnosis of fracture of the thyroid cartilage was made. As nearly as could be determined by manipulation, the line of fracture extended from the highest point of the upper margin of the right ala of the thyroid cartilage in an almost straight line downward to the crico-thyroid membrane. In spite of the other grave symptoms the respiratory function was fairly well maintained, and on the strength of this symptom I decided to await developments. No attempt was made to restore the normal relation of the parts. Antiphlogistic measures were resorted to, believing that if the inflammation was kept within bounds much would be accomplished. A Fothergill poultice was ordered placed over the seat of injury together with morphia sulphate gr. ½, by the rectum, to be repeated as often as necessary to subdue the pain. On the morning of the second day he was able to take a little nourishment by throwing his head back and allowing broth to run down his gullet, but any exercise of the muscles of deglutition still caused him great pain. In this way he was fed for four days. For five days he was unable to speak above a whisper, and at this time (twenty-four days after the accident), his voice is still impaired and the larynx much displaced to the right. There is still abnormal mobility of the right ala of the cartilage.

Dr. G. V. Woolen, Professor of Rhinology and Laryngology, Central College of Physicians and Surgeons, of this city, saw the case on the seventh day after the accident, and I herewith append his report:

Dr. Thomas B. Eastman brought Mr. K. to my office for special laryngoscopic examination, with statement that patient had received a stroke from piece of flying wood across larynx, followed by violent inflammation, aphonia, hemoptysis, etc. There was yet remaining a distinct depression in a perpendicular direction across the right wing of the thyroid cartilage with mobility from pressure. Internally there was found considerable congestion of larynx, especially of region of right cord and ventricular band, both of which bulged into cavity of larynx and met opposite parts prematurely in efforts at phonation.

A FEW REMARKS ON THE EARLY HISTORY OF RECTAL DISEASES.

Read before the Mississippi Valley Medical Society, Hot Springs, Ark., Nov. 3, 1894.

BY S. G. GANT, M.D.

KANSAS CITY, MO.

In the selection of historic medicine for my subject, I am well aware that I have chosen one that is rarely touched upon in medical societies and the current literature of the day. The study of the history and progress of medicine has ever been of great interest to me. I well remember, when holding down the benches at college, how the class used to enjoy a brief change from our routine lectures, when one of the professors would tell us about the heroes of medicine hundreds of years ago, and how such men as Hippocrates, Celsus, Galen, and others of the ancients, practiced the art and science of medicine; we listened attentively and marveled at their accuracy of diagnosis and the practical manner in which they effected a cure; this, too, with their meager knowledge of anatomy and physiology.

The science of medicine and surgery extends its inquiries over such a vast field, and comprehends such an enormous mass of facts and observations, that it would be impossible in a paper of this length to give more than a brief *resumé* of the history of one special department of medicine, which, I trust will be of some interest to this society, viz., that of rectal diseases.

I believe with that scholarly physician, William Bodenhamer, that there is no class of diseases within the whole range of medical literature which has a more ancient history, a more hoary antiquity, and a more conspicuous sacredness than some forms of rectal disease. In fact, the history of this class of diseases embraces all ages, including Hebraic, ancient and modern history. Medical men have, from the time of Adam down to the present day, devoted much time and study to these diseases. The first recorded mention of rectal diseases that we know of was made by Moses, the law-giver. This can be found in the fifth book of the old Bible. After explaining to the Jews the manner in which they would be rewarded if they strictly carried out the laws of God, he goes on to say: "And if thou wilt not hearken unto the voice of the Lord, and observe his commandment then all these curses shall come upon thee." He then records a number of curses; the only one of interest to us, however, is the following: "The Lord will smite thee with the botch of Egypt and with the emrods (hemorrhoids), whereof thou canst not be healed." Now, if we turn to I. Samuel, v. 5, we find the following bit of interesting information: He tells us that the Philistines took the ark of the Lord from Ebenezer and brought it unto Ashdod, and forthwith the hand of the Lord was heavy against them, and He smote the men of the cities both small and great, and they had the emrods in their secret parts." Again, in Psalms LXXVIII, v. 66, we find recorded that He smote His enemies in the hinder parts. The ark of the Lord was then removed to Gath and Eckron with the hope that the plague, (emrods) would be removed, but such was not the case; on the contrary, these cities were alike afflicted. The people then began to seek a way in which they might rid themselves of their afflictions, and to this end they sought out the priests, and inquired what they must do to obtain relief. It is of interest to note the manner in which the cure was effected. It appears that after consultation, the priests and divines told the people to return the ark of the Lord to the Israelites from whom they had taken it; but it must not be returned empty. They must make a trespass offering of five golden images of the "emrods," according to the number of the lords of the Philistines; "for one plague is on you all, and all your lords. Do this, and thou shalt be healed."

It is stated on good authority that the natives in the far East at the present time make images of their afflicted parts and offer them to their gods as a trespass offering, and believe that through them alone can they obtain relief, many of their places of worship being burdened with such offerings. From the fact that the Israelites were threatened with the plague previously referred to, some writers have argued that the Jews from then down to our time are more frequently afflicted with rectal diseases of a *hemorrhoidal* nature than any other race of people. They teach that this malady is inherited by the Israelites, and that it is entailed upon them and their posterity forever, because of spiritual disobedience. From my limited study of Hebraic and ancient history, together with my personal experience in the treatment of these diseases among all races, both in private and hospital practice, I have been unable to obtain any evidence to substantiate such a claim. On the contrary, I have had ample opportunity and have noted that the Jews are no more liable to be afflicted with rectal diseases than other people. Again, there is not a single instance in the Bible where it states that the Israelites ever had this threatened punishment inflicted upon them. On the other hand, there is abundant evidence to show that the plague with which the Jews were threatened was visited upon the Philistines some three hundred years thereafter, for stealing the ark. In view of the limited evidence at our command, I believe we are justified in concluding that the Jews are no more liable to be afflicted with any form of rectal disease as a result of divine punishment, than are the Gentiles. Unfortunately, we have no definite knowledge of the exact pathologic meaning of the Biblical term, "emrods," so frequently mentioned in the Scriptures. This is owing to the wide diversity of opinions of the Biblical commentators. Some took it to mean a disease similar to bleeding piles; others, that there was a prolapsus of the bowel which remained out until it became putrid and sloughed off; and others took it to be some form of dysentery, and not a few that it was of a fistulous nature. The Greeks, Hippocrates, Galen, and others, evidently thought it to be a diseased condition of the rectal veins, accompanied by hemorrhage, for they substituted the word hemorrhoids for the Scriptural one, "emrods." Ever since that time, hemorrhage from the rectum has been diagnosed as such. It would appear from the writings of the ancients that some thought the hemorrhage active; others, that it was passive. It seems that they never mentioned anything about swellings or protrusions. According to our more modern teaching, the term hemorrhoids is applied to almost any swelling about the anal region, no matter whether there be hemorrhage or not. It at once becomes evident then that this term, as used by the early writers, was a misnomer and did not express the exact pathologic condition present, only the most prominent symptom. Leaving the Hebraic

and turning to that of ancient history, we find frequent mention of certain forms of rectal diseases, also the plan of treatment adopted.

It is gratifying to note that in many instances the treatment suggested by the Greeks, Celsus, Hippocrates, Galen, and Rhazenand Abbas, the Arabian physicians and others of the ancients is practiced by the surgeons of our time with very slight modifications. This demonstrates the fact that they were not altogether wrong in their pathology though they were lacking in the knowledge of anatomy and physiology that we possess. I have neither the time or inclination to pay more than a passing glance at the treatment followed by the ancients in some of the more common forms of rectal diseases. Fissures were described as superficial erosions, cracks, or chaps, and, being slow to heal, the treatment consisted in converting them into recent ulcers by paring, scarifying, or incising them with the finger nail or scalpel when they were made to heal by topical applications. Hemorrhoids were ligated as to-day, except that the skin was not severed to prevent after-pain. Those who did not favor the ligature method used the cautery by puncturing the tumors, in addition to which various drugs were used locally. Fistula was accurately described by them and so far as I can find out their treatment consisted principally of setons and the local application of various drugs.

Many of the ancient writers believed that divine power must be enlisted in order that a cure might be effected in the various forms of rectal diseases. Others believed that an "amulet" was necessary; that to carry something in their pocket—a piece of metal, a precious stone, or a certain kind of nut or vegetable would cure them, and this practice is not abandoned to-day. For many of our own countrymen carry with them a buckeye or a horse-chestnut when suffering from piles or fistula, as an "amulet" for their relief or cure. Many patients have told me of remarkable cures effected in this way. The Irish potato comes next in favor to the buckeye, and it must be "dug out of the garden when the moon is right," put in the left trouser pocket, and is never to be removed under any circumstances. After a time they shrink up until they are no larger than a pigeon egg and are as hard as a rock. Then they will cure the worst case of piles. From the time of the Greek writers down to about the fifteenth century there is nothing recorded that would be of especial interest in this paper, but about this time or a century later, the writings about different diseases were very prolific and have continued so ever since. The reason given why the surgeons previous to this time said nothing about this class of diseases was because of the false delicacy in those who had them in not letting it be known. Again, in olden times most rectal diseases were considered incurable, and for a person to have an incurable disease was to have a disgraceful one; hence, these persons suffered on in silence lest they reveal their disgrace, and be ostracized by society. We find a very interesting instance of this in a treatise on "The Fistula of the Anus," originally written in Latin by John Astruc about 1715, the first individual work of the kind ever written, a copy of which I possess and value highly. He says, "of late years (about 1700) was a case of fistula scarce seen or heard of by the physicians of the last age. But when once Louis XIV., King of France, labored under this complaint it became fashionable, and a vast multitude of these cases suddenly presented themselves, and after the King's example every one made an open and voluntary confession of this once secret disorder." He then records a parallel case, by Pliny, in the reign of Tiberius Cæsar; he says, "the cholic first showed itself, nor did one man in Rome ever complain of this disorder until the Emperor had been severely attacked by it." Fistula in ano has been immortalized by Shakespeare in his play "All's Well That Ends Well," based upon the King's having a fistula. This play is said to have been written in 1606. Again, the great historian, Hume, in writing of the death of King Henry V., who died about the year 1422, says he was seized with a fistula, a malady which the surgeons at that time had not the skill to cure. It is said that Louis XIV. deferred having an operation by the knife for many months though his attending surgeon, Monsieur Felix, insisted that such an operation was necessary if he anticipated a cure. As the laity became aware that their sovereign was suffering from a fistula many cures were suggested by physicians, priests, and others who claimed that they had effected many remarkable cures by their respective methods and who took this opportunity to gain His Majesty's favor. After deliberating he determined to give each one a chance to prove his assertions, but he was too long-headed to have the experiments tried on his own person. He set apart a wing in the palace and placed a number of his subjects in the various rooms who were suffering from fistula, and all of the various remedies suggested, together with a number of mineral waters said to always effect a cure in fistula cases, were given a trial. Not in a single instance was a cure effected. At last the King, to whom Monsieur Felix gave an account of the experiments, determined to have the operation performed. One morning when nothing of the kind was expected by the courtiers it was done, several incisions being made. This happened on Nov. 21, 1687. The cicatrization was well managed and the King perfectly cured. His Majesty royally recompensed Monsieur Felix and his assistants, the total amount of the fee being $73,500. These were "royal days for surgeons," says a writer in the *Medical Chirurgical Review*. Immediately after the King's recovery this disease became fashionable and hundreds of people flocked to Monsieur Felix to be operated on for this complaint. It is even hinted that certain courtiers who previous to this time had concealed their afflictions, selected Versailles as the place to be operated on, for here the King would hear of their indisposition. One writer goes so far as to say that some of them did not have fistula at all, and were much put out when informed that an operation was not necessary.

My paper has now reached such a length that it would burden you, should I endeavor to even mention the various operations and methods of treatment that have been brought forward during the last four or five hundred years. The investigations of the various important diseases affecting the terminal portion of the colon, have during this time been prosecuted with very considerable ardor, and the advantages gained in consequence have been markedly progressive; for this knowledge we are indebted among others to such celebrated surgeons as Brodie, Allingham, Cooper, M. Boyer, Dupuyren, Van Buren, Bushe, Smith, Salmon, Curling, Ashton, Whitehead, Bodenhamer, Matthews, Kelsey, Cook and others, I was about to

omit the name of that ingenious surgeon, Calvert, whose tallow candle led to the idea of the treatment of stricture by bougies.

In concluding my paper, I wish to read a few verses from Erichsen's *Medical Rhymes* written by a patient while undergoing treatment for stricture. It is said he left them on his physician's desk just before taking his departure for Niagara Falls, "where the water runs down hill with nothing on earth to hinder it."

"When sorrow's cloud is cast athwart
The sunshine of my mind,
When I, with gloomy care distraught,
No recreation find;
When sighing o'er my helpless lot,
And what I used to be,
I'll seek some quiet, tranquil spot
And pass a small bougie.

"Let strictures on my conduct pass:
Unnoticed let them be;
A stricture somewhere else, alas!
Is more deplored by me.
In hope this blight on manhood's bloom
I yet effaced may see,
I'll hie me to my quiet room
And pass a small bougie."

In the preparation of this paper I have made frequent reference to the following works: Bodenhamer, on the Rectum and Anus, 1855. Anal Fissures, 1868, and Hemorrhoidal Diseases, 1884. Erichsen, on Medical Rhymes, 1884. Paul, of London, on Lower Bowel, 1869. John Astruc, on the Fistula of the Anus, in Latin originally, and translated into English by John Freke, F.R.S., London, in 1738.

FIBROUS POLYPUS OF THE RECTUM.

Read before the Delaware County Medical Society.

BY G. W. H. KEMPER, M.D., AND HUGH A. COWING, M.D.
MUNCIE, IND.

The specimen here presented is one of fibrous polypus recently removed from the rectum of a girl aged 6 years. At various times before the removal of the tumor, the child had passed slight quantities of bloody mucus, and the mother, at times, had noticed a fleshy mass presenting at the anal orifice. The father had applied to us for medicine for piles, but the exceeding rarity of hemorrhoids in children led us to suggest to him to bring her in for examination; and that it was probably a case of polypus. This was confirmed upon examination. The tumor was attached by a long slim pedicle to the rectal wall nearly an inch above the external sphincter. After the expulsion of a warm water enema the polypus came into full view, and its size and attachment determined. A ligature was thrown around it near its junction with the pedicle and the tumor was removed, there being but slight hemorrhage. The pedicle was restored to the rectum (without a ligature). Chloroform anesthesia was employed.

According to Parvin, polypus of the rectum is rare in the adult; still rarer in either adult or child is rectal fibrous polypus.

Gross refers to the uncommonness of polypi in the rectum, and divides them into two classes: "Gelatinous or adenoid, and fibrous"; the former being of far more frequent occurrence.

Allingham remarks that "polypi of the rectum are usually described as being of two kinds, the soft or follicular, and the hard or fibrous; the former being found in children and the latter in grown persons." He also states: "I quite concur in the statement that the soft polypus is the one always found in children, but I am of the opinion that the fibrous variety is rare, even in the adult." Subsequently he states that he does not remember meeting in his practice "with more than six distinctly fibrous polypi".

Dr. Parvin (Trans. Indiana State Medical Society, 1873, p. 113) in his interesting article on "Fibrous Polypus of the Rectum," gives the following history:

"Mrs. ——, 42 years of age, a widow, states, that for nearly four years she has suffered from pain in the rectum, tenesmus, hemorrhages, and that for some months past the bowel has prolapsed whenever evacuated, requiring her to replace it. Besides—this is her narrative—the bowel comes forward into the vagina and presses against the urethra, causing frequent and sometimes difficult urination. Sitting for any length of time gives her great uneasiness while in a recumbent position she is comparatively comfortable. By medical advice she has used astringent injections for the hemorrhage, which is supposed to result from piles. No examination, however, has been made. The patient lying on her back, with her limbs drawn up, digital examination of the vagina and then of the rectum determined the presence in the latter of a hard polypus, attached by a long thin pedicle to the anterior rectal wall, two inches above the anus. Immediately the tumor was brought outside of the rectum, a ligature applied to the pedicle and the latter divided below the point of ligation."

A REPORT OF TWO CASES OF LEPROSY IN NATIVE-BORN CITIZENS OF OHIO.

BY J. G. McDOUGAL, M.D.
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On Dec. 19, 1894, there appeared before the New Lexington Board of Pension Examiners, Hannah M. Garey, an applicant for pension as a dependant child of George W. Garey, a deceased soldier of the One Hundred and Eighty-Seventh Regiment, Ohio Infantry. Examination disclosed that she was a victim of anesthetic leprosy, the following manifestations of which she presented: The left hand and distal third of fore-arm were swollen and rather firmly thickened, the hand, and wrist being about twice the normal size. The distal phalanges of all the fingers were lost and the stumps healed. The thumb was slightly flexed, the nail deformed, thickened and discolored.

The hand was being amputated at the radio-carpal articulation by a narrow encircling ulcerative process and the work was so near completion that only the ulnar vessels and a few tendons attached the hand. Both surfaces were covered by granulations and bathed with extremely foul-smelling pus. The right hand and fingers were swollen and clubbed, the distal phalanges of all the fingers lost, and the thumb affected as the left.

Both feet were swollen to one and a half times normal size and the swelling also involved the lower third of legs. The first three toes of each foot were lost at middle of proximal phalanges and the little toes at distal joints. The remaining toes were clawed and the nails deformed. In the middle of left sole was a deep ulcer from which there was a very offensive discharge. All the affected members were decidedly anesthetic—the thermal anesthesia being especially marked. There was an anesthetic bleb, the size of a silver quarter, on outer side of right arm just above elbow. The tongue, lips and nose were scarred and somewhat deformed from ulcerations that had healed.

The subject of this description is 18 years of age and this malady began to manifest itself when she was fifteen months old. In two or three years the toes began to ulcerate and come off; and the hands became involved, the flesh ulcerating from the fingers leaving the blackened dry bones exposed and these she persistently drummed on the tables and chairs until her mother cut them off with shears. She menstruated regularly from the time she was 14 years of age until about one year ago when menses ceased. The drain from the amputating ulcer which

developed about eighteen months ago probably caused the cessation of the menstrual flow.

Learning that a sister 8 years of age had been similarly afflicted for three years I visited her, finding the following evidences of the same disease: Her feet are clubbed and legs stocky, and the skin covering them is thick and scaly and decidedly anesthetic. Two toes are lost from each foot. The hands are also thick and the skin covering them rough and anesthetic; the nails are growing deformed and dark.

The parents and grandparents of these leprous sisters were all natives of Ohio and belonged to long-lived families. The parents were married in 1866. There are eight children and all are healthy except Hannah M. the fourth born, and Hattie the last born.

The mother is 44 years old and healthy. The father was pensioned for sunstroke. He died from apoplexy March 10, 1893. The mother states that the only visible disease the father ever had was a skin eruption on end of nose and upper lip which gave off an offensive discharge. It developed a few years after their marriage and never healed. It must have been slight, as several acquaintances of whom I inquired had never noticed the affection. He had consulted physicians about it, however, who had called it eczema and had treated him for it.

The One Hundred and Eighty-Seventh Regiment, Ohio Infantry, of which the father was a member was stationed during the few months it was in service at Nashville, Tenn., Dalton, Kingston and Macon, Ga.

I am willing to submit without argument that the father was a leper, in whom the bacillus lepræ did not vigorously thrive; that leprosy was *communicated* to him while in the South during the war, and that he communicated the disease to two of his children.

REFLEX IRRITATION AS A CAUSE OF DISEASE.

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Medicine has suffered from "fads" from time immemorial.

The authority of some great leader or teacher is enough to bolster up an error for a generation or more. In fact, much that is to-day taught is merely the dictum of some one who has never taken the pains to investigate the truth.

No error in modern times has held such tenacious hold on the professional mind as that of reflex irritation as a cause of nervous disease. To most of us the explanation of the occurrence of any nervous phenomenon or lesion is satisfactorily accounted for if some peripheral irritation is found; a long prepuce, some slight version, flexion or laceration of the uterus or other deviation from the picture in our charts, is sufficient to account for hysteria, epilepsy or other nervous disease. This, too, in spite of the fact that all these minor lesions are repeatedly met with unattended by any nervous manifestation, yes, even gross disease of genital or peripheral nerves is often if not generally unattended with serious nervous disease.

I have just had a patient, a lady of 35, who for four years has been attending to her household duties with an elongated, badly ulcerated cervix hanging between the thighs. She has no nervous symptoms whatever, and seeks relief from the trouble merely for the local inconvenience.

The theory has a few familiar conditions which seem to hold it up and are usually accepted as a full vindication—vomiting in pregnancy, and certain minor urinary difficulties from irritation from a long prepuce are some of these. A moment's reflection will show how little there is in these. They are merely slight exaggerations of physiologic reflexes and are not distinct nervous diseases. Because pregnancy causes vomiting in many cases, it does not in the least warrant the conclusion that continued irritation of the uterus will cause epilepsy, insanity or other definite nervous disease. On the contrary, a study of any of these will reveal deeper causes. We should always keep in mind that peripheral irritation does give rise to reflex symptoms, but that this does not prove that they cause definite systematic nervous diseases.

The reflex theory dates back many years. Early in this century, and perhaps still earlier, it was offered as an explanation for certain neurotic phenomena, but its prominence in the medical mind of to-day is due to the lectures of Brown-Sequard on the physiology and pathology of the nervous centers, delivered in London in 1858. In 1833 Stanley had written of urinary paraplegia (Med. Chir. Trans., Vol XVIII), but the prominence given to reflex irritation in these remarkable lectures gave it the impetus of authority which still sways the medical mind. If I had the time, I would like to read you some of the cases cited by the author, that you might see how far he went with this idea. For example, the extension of inflammation from one eye to the other, inflammation of the testicle due to passing calculi or ileo-sacral neuralgia, diseases of the urinary organs producing paraplegia, also paralysis from worms or other irritation of abdominal viscera are attributed to reflex irritation. He cites a case of peritonitis and death following operation on the cervix which he explains in the same way.

In most of these cases we know to-day better how to interpret the pathologic process, but at the same time the reflex theory was used as it now is to explain where our knowledge does not find anything better.

Following Brown-Sequard was I. Baker Brown with his work on "Curability of Certain Forms of Insanity, Epilepsy, Catalepsy and Hysteria in Females," 1866. In this work he claims that many cases of the diseases mentioned are due to irritation of the pudic nerve and especially to that branch distributed to the clitoris, and they were to be cured by excision of that organ. He reported eight cases of hysteria, seven of which were cured and one relieved by the operation.

In 1870, Sayre reported cases of urinary troubles of various kinds, as well as paralysis and other grave nervous diseases, due to adherent prepuce and these were promptly cured by breaking up adhesions or circumcision.

Otis, in 1874, published a paper in which he reports cases of paraplegia enuresis and vague nervous troubles cured by urethrotomy for stricture of the urethra. Since that time, although many of these claims have been proved fallacious, still we are constantly having contributions with reports of cures, all of the same vague and uncertain kind and by the removal often of slight peripheral lesions.

Two years ago, Robert T. Morris reported several similar cases cured by breaking adhesions of clitoris and prepuce. It is not necessary for me to remind

this audience of the uncertainty of conclusions drawn from the cure, or seeming cure, of any disease, but especially of neuroses. The chances for error and deception are familiar to all. Is there a physician here who has not encountered cases which he thought he had cured by some plan of treatment or operation, and later found that he was entirely mistaken and that the improvement was only transitory as is so common in all nervous diseases. For nearly twenty years I have thought much of this question, my attention being first called to it by the articles of Sayre. I followed his advice and did many circumcisions and later, mainly through the teachings of Emmet, did operations on the cervix and vagina, and have observed many cases of neuroses in women presenting various lesions of the genital tract, and I want to say here, that I have never seen a case of epilepsy, insanity, catalepsy, hysteria or grave neurasthenia, nor any organic disease of the nervous system, cured, or even permanently benefited by any operation on the genital tract, either done by myself or any one else. I have also noticed as I believe every one else has, that a large proportion of patients who consult us for diseases or injuries of the genital tract do not suffer from definite nervous disease, and on the other hand, that of patients who do consult us for nervous diseases, many and perhaps most of them are free from genital disease. It seems to me, therefore, that in a given case in which we find genital irritation and nervous disease, careful inquiry into the cause will develop other more potent causes. The same is true of irritation arising from abdominal viscera or other peripheral irritation. I have never, myself, had a case of nervous disease which I thought was due to peripheral irritation. In most of them other causes could be demonstrated. I want to be distinctly understood in this matter. I do not deny that lesions of the genital tract may not in some way derange the nervous system, but I do say that it does not do it by reflex action. For example, a woman has a bad laceration of the perineum, that interferes with her locomotion, it is difficult or painful for her to go about; her life becomes sedentary; she suffers with constipation, later dyspepsia from her inactivity; then her general system suffers from deficient nutrition as well as the want of healthful exercise. The nerves are not nourished and disease is engendered. Or a patient has some disease of the abdominal viscera, perhaps he has intestinal indigestion and nervous symptoms—a very common thing. Are we now to say that his nervous disease is reflected from the bowels? No, indeed. The lack of proper digestion and assimilation of food starves the system or by auto-infection poisons it. Here we will find the causes of more neuroses than all the peripheral irritation you can trump up. Auto-infection from poison generated in the intestinal canal or elsewhere, and starvation from mal-assimilation are the causes in most cases, and these should be looked into while repairing local lesions or injuries.

The repudiation of the widely accepted importance of reflex irritation, as a cause of disease, is by no means original with me nor is it new. Gull, in 1856, protested against it. (Med. Chir. Trans.) Jaccoud followed in the same vein in 1864. Romberg, Hussmaull, Leyden, Weir-Mitchell and Goodell have pointed out some of its errors. Skene, in his work on "Gynecology," devotes a chapter to gynecology as related to insanity of women, that should be carefully read. Landon Carter Gray (Archives Anat. and Surg.) in 1882 published an able and comprehensive article on this error, and in his recent work devotes a chapter to it.

I have tried briefly to direct your attention to what I consider a great error, and I believe you will find in the future that in any case where you are inclined to attribute the cause of any disease to reflex irritation, a careful study will reveal other more important etiologic factors.

ORIGINAL INVESTIGATIONS ON THE NATURAL HISTORY, (SYMPTOMS AND PATHOLOGY) OF YELLOW FEVER. 1854–1894.

BY JOSEPH JONES, M.D., LL.D.
NEW ORLEANS, LA.

(*Continued from page 125.*)

CHAPTER III.

Case 7.—Yellow fever; severe case; jaundice; albumen in urine; recovery. Wm. Busse; age 25; native of Germany. Has been in New Orleans seven months, and came here from Red River. Seized with pain in the head and back and fever on Oct. 11, 1873, and entered Charity Hospital, Ward 24, October 13. At time of admission, complained of pain in head, back and knees. Tongue red at tip and edges and coated in the center. October 14, conjunctiva of eyes congested and yellow; surface of body yellow; nausea and vomiting; breath and odor of body foul; urine abundant and contains albumen and casts. On October 15 and 16, pulse intermittent, but the patient improving. On October 20, the patient was able to sit up and to be brought down to my clinical lecture in the amphitheater, and on October 22 was able to walk about the hospital. After the complete establishment of convalescence the patient was confined for several weeks by a painful abscess in the axilla. The following observations were made on the pulse, respiration and temperature:

Date.	Pulse.		Resp.		Temp.	
1873	M.	E.	M.	E.	M.	E.
Oct. 14	84	90	32	36	103.4°	103.8°
" 15	80	86	24	26	100.2°	102 °
" 16	82	84	26	24	100 °	100.2°
" 17	84	86	26	30	101 °	101.8°
" 18	82	78	26	24	99.6°	99.2°
" 19	80	82	22	24	99 °	100 °
" 20	84	84	26	24	98.6°	98 °
" 21	88	92	24	24	100 °	101 °
" 22	78	96	30	22	98.2°	99.8°
" 23	82	84	22	24	100.4°	100.4°
" 24	80	82	20	18	98.4°	99.3°
" 25	80	....	20	....	99.7°	.....
" 26	80	....	26	....	98.8°	.....

Case 8.—Yellow fever. Edward Ryan; age 42; native of Ireland; resident of United States twenty-five years, in New Orleans one year; laborer. Admitted to Charity Hospital, Ward 26, Oct. 8, 1873. Was sick since October 4. At time of entrance, high fever; red swollen gums; restless. On October 9 albumen and casts and bile appeared in the urine. On October 17, when the patient was convalescent, the urine contained but a small quantity of albumen. The following observations were begun on the sixth day of the disease and continued up to the nineteenth day and embraced the period of convalescence:

Date.	Pulse.		Resp.		Temp.	
1873	M.	E.	M.	E.	M.	E.
Oct. 11	75	70	31	36	100.7°	100.6°
" 12	68	72	30	36	98.6°	98.7°
" 13	60	61	34	36	98.6°	98.6°
" 14	60	66	36	30	98.9°	99.2°
" 15	58	56	32	32	99.2°	99.6°
" 16	58	60	26	26	99.4°	99.6°
" 17	52	62	30	36	99.4°	100.4°
" 18	60	58	30	30	100 °	100 °
" 19	58	60	28	26	99.3°	99.6°
" 20	60	62	28	28	98.2°	99.7°
" 21	80	80	28	28	99.7°	99.8°
" 22	80	70	28	26	99.2°	99.8°
" 23	86	68	26	28	100.8°	100 °

In the preceding case we observe that the lowest point in the action of the heart was reached on the seventeenth day of the disease, when the pulse was only 52, notwithstanding that the respiration was 30. It is also worthy of note that as in many other cases of yellow fever, both during convalescence and in the state of depression preceding death, the temperature fell below the normal standard. This, however, is not always so in fatal cases, which frequently terminate with high temperature.

Case 9.—Yellow fever followed by malarial fever. John Clooney; native of Liverpool; age 26. Entered Charity Hospital, Ward 26, Oct. 14, 1873. Patient had been working on rice plantation twenty-five miles above New Orleans. On October 1 was seized with chills and fever. Yellow fever appeared to have been engrafted on the paroxysmal fever. After producing its characteristic phenomenon, the malarial fever again appeared and was arrested by the free use of quinin.

Date.	Pulse.		Resp.		Temp.		Remarks.
	M.	E.	M.	E.	M.	E.	
Oct. 14	100	118	20	28	100.8°	104.6°	Pain in head, epigastrium and back; perspiring freely; urine contains albumen, red color.
" 15	98	100	18	21	100.9°	101.5°	Perspiring; appetite gone; pains relieved; conjunctiva yellow and tongue slightly coated.
" 16	96	92	18	18	100.8°	100.4°	Improving; urine contains albumen
" 17	88	96	18	22	100.2°	100.5°	Improving; albumen in urine.
" 18	92	94	18	21	99.2°	100 °	Continues to improve; pulse intermittent.
" 19	80	84	18	24	99.8°	99.6°	Improving.
" 20	84	86	22	22	99.8°	102. °	Fever appeared in the day.
" 21	86	. .	22	. .	99.6°	. . .	Fever.
" 22	84	86	20	22	99.5°	102.2°	No albumen in urine; fever; pulse irregular and patient very nervous.
" 23	86	100	16	14	99.7°	102.6°	Fever, very nervous; hands tremble.
" 24	80	82	14	12	99.7°	100 °	Quinin freely administered; perspires; abatement of fever; patient very nervous; perspiring freely; respiration irregular and oppressed.
" 25	80	. .	14	. .	99.6°	. . .	Nervous; respiration irregular; twitching of muscles; no albumen in urine, and rested.
" 26	94	. .	16	. .	99.4°	. . .	Perspiration, rest and sleep during the night; hands and limbs very tremulous and nervous.
" 27	84	80	22	21	99.3°	100 °	Improving.
" 28	80	. .	18	. .	100.2°	100.2°	Improving.
" 29	80	84	18	18	100.2°	100.7°	Improving.
" 30	. .	. .	. .	. .	100.6°	. . .	

The diagnosis in this case presented some difficulty; with reference to the question whether the disease was yellow fever or remittent malarial fever. It is worthy of note that while the albumen was present in the urine of the yellow fever, it was absent during the subsequent attacks of malarial fever.

Case 10.—Yellow fever succeeded by intermittent fever; the latter disease arrested by quinin; recovery. H. M., age 22; native of Germany; butcher; has resided in New Orleans for four years. Says that he had fever four days before entering the hospital. Entered Charity Hospital, Ward 24, Oct. 3, 1873, with high fever, intense jaundice and capillary congestion. The fever intermittent October 8. The following record of temperature embraces the period of convalescence from yellow fever, and the appearance of the periodic malarial chills:

Date.	Pulse.		Resp.		Temp.		Remarks.
1873.	M.	E.	M.	E.	M.	E.	
Oct. 9	96	100	26	28	100.2°	100.6°	Intense jaundice; capillary congestion.
" 10	94	90	24	24	99.8°	100.4°	Intense jaundice; capillary congestion.
" 11	98	88	25	23	100.7°	100.4°	Intense jaundice; capillary congestion.
" 12	82	80	22	24	100.6°	100 °	Jaundice disappearing.
" 13	84	88	22	24	100.7°	100.8°	Improving; sitting up.
" 14	84	72	24	22	101.9°	99 °	Intermittent pulse.
" 15	82	104	22	25	100.6°	104.6°	Chill during day, followed by fever.
" 16	68	60	22	22	99.4°	99.7°	Intermission.
" 17	70	116	22	30	100 °	105 °	Chill at 3 p.m., followed by fever.
" 18	60	68	22	22	98.2°	99.4°	Intermission; quinin 5 grains four times every three hours.
" 19	78	78	26	22	100.8°	99.6°	Intermission; 5 grains quinin four times.
" 20	74	66	26	24	100.7°	99.8°	Intermission.
" 21	100	. .	26	. .	103. °	. . .	Chill during night.
" 22	*	*	*	*	*	*	Intermission; quinin freely given.
" 23	*	*	*	*	*	*	Intermission; quinin freely given.
" 24	*	*	*	*	*	*	Intermission; quinin freely given.
" 25	*	*	*	*	*	*	Intermission; quinin freely given.

* Normal.

In this case the patient had had repeated chills and fever during the summer and fall, which continued up to the time of the attack of yellow fever. This latter disease induced its cycle of changes, and was of a continuous type. Six days after the subsidence of the yellow fever febrile stage, the malarial fever reappeared at stated intervals and manifested its characteristic paroxysmal phenomena.

Case 11.—Yellow fever; hemorrhage from mouth and tongue; jaundice; pulse reduced during convalescence to 42 per minute; treated with sulpho-carbolate of sodium; recovery. Telespert Brutet; age 20; native of Canada; laborer. Has resided in New Orleans two weeks. Entered Charity Hospital, Ward 13, October 28. Attack of fever began with a chill which lasted three hours and was followed by intense headache and pain in epigastrium, back and lower extremities. From the account given by the patient, he appears to have entered the hospital on the fourth day of the attack. The following is the record of the pulse, respiration and temperature:

Date.	Pulse.		Resp.		Temp.		Remarks.
1873.	M.	E.	M.	E.	M.	E.	
Oct. 28	*	*	. .	30	99.5°	102.2°	Conjunctiva yellow, face and chest with a tinge of yellow; tenderness of epigastrium; pain in head, back and lower extremities; nausea and vomiting; stomach irritable, retains nothing but fragments of ice. Vomited matter streaked with blood; tongue coated in the center, very red at tip and edges; gums red; mucous membrane of mouth red and ecchymosed in places; conjunctiva injected; surface injected; pulse feeble and irregular, cannot be counted; patient very weak; urine loaded with albumen and casts; strong acid reaction.
"	72	76	20	18	99 °	101 °	Thirst and dryness of mouth continue; jaundice increases; action of heart very feeble; urine red and albuminous.
" 30	60	54	20	18	99.2°	99 °	Slept for a few hours; appears to be better; vomiting almost entirely arrested; pulse slower but stronger.
" 31	44	44	18	16	97.6°	98.4°	Slept well during night; heart beats feeble; respiration slow but deep drawn; improving; gums and tongue bleeding; spits blood; urine albuminous.
Nov. 1	42	50	14	16	98.2°	101.8°	Hemorrhage from tongue and gums continues; heart actions feeble; urine albuminous; general symptoms improving; jaundice well marked.
" 2	50	54	20	23	98.2°	101.8°	Heart still beating feebly; hemorrhage from tongue and gums; otherwise improving.
" 3	54	44	18	18	98.6°	98 °	Tongue moist and not so red; hemorrhage stopped; action of heart still very feeble.
" 4	44	. .	17	. .	98.6°	. . .	Improving.
" 5	44	. .	16	. .	98.8°	. . .	Improving.
" 6	46	42	20	20	99.4°	99.8°	Continues to improve.
" 7	48	. .	20	. .	98 °	. . .	Convalescent.

*Feeble, irregular.

This patient was treated from October 28 to November 2 with 20 grains of the sulpho-carb. of sodium every three hours.

In the preceding case, coupled with a small amount of black vomit and continuous hemorrhage from the mucous membrane of the mouth, there was depressed temperature, slow pulse and a very feeble action of the heart. Although the prognosis in this case was unfavorable for at least six days, the patient passed by slow stages to complete recovery.

The following cases of yellow fever treated in my wards of the Charity Hospital in the autumn of 1873, were all attended to a greater or less extent with jaundice and the observations upon the pulse, respiration and temperature relate to the period of convalescence:

Case 1.—E. S., age 27; attacked with yellow fever September 18. During convalescence, while the conjunctiva and skin were still yellow, the pulse ranged from 56 to 61, respiration from 17 to 22, and the temperature between 98.5 and 100 degrees.

Case 2.—J. J., age 21; laborer; native of Wales; contracted

fever in Memphis, Tenn., September 10; during convalescence while still jaundiced, pulse 68 to 97; respiration 22 to 28; temperature 99.5 to 102 degrees.

Case 3.—H. S., age 20; native of Germany; laborer; attacked Sept. 29, 1873. During convalescence, pulse 43 to 70; respiration 12 to 14; temperature 99 to 100 degrees.

Case 4.—H. A., age 40; native of Germany; attacked with pain in head and back, and fever Oct. 3, 1873; entered Charity Hospital, Ward 27, October 6. October 8, evening, pulse 79; respiration 28; temperature 102 degrees. October 9, morning, pulse 92; respiration 27; temperature 102.5 degrees; evening, pulse 94; respiration 27; temperature 102.5 degrees. October 10, morning, pulse 78; respiration 22; temperature 97.9 degrees; evening, pulse 75; respiration 22; temperature 99 degrees. October 11, morning, pulse 58; respiration 19; temperature 97 degrees; evening, pulse 63; respiration 21; temperature 98.7 degrees. October 12, morning, pulse 66; respiration 20; temperature 98; evening, pulse 56; respiration 20; temperature 98 degrees. October 13, pulse 64; temperature 97.5 degrees.

Case 5.—F. H., age 18; native of Kentucky; laborer; admitted to Charity Hospital, Ward 13, Oct. 3, 1873, second day of disease. October 8, convalescent, but still jaundiced; pulse 50; respiration 20; temperature 98.5 degrees. October 9, morning, pulse 54; respiration 20; temperature 97.4 degrees; evening, pulse 62; respiration 20; temperature 98.6 degrees. October 10, morning, pulse 56; respiration 18; temperature 97.8; evening, pulse 58; respiration 20; temperature 99.6. Discharged October 12.

Case 6.—G. O., age 35; native of Ireland; laborer. Entered Charity Hospital, Ward 25, on third day of disease. October 8, moderate fever; pain in head, back and epigastrium; evening pulse 93; respiration 23; temperature 101 degrees. October 9, morning, pulse 89; respiration 29; temperature 100 degrees. Conjunctiva and skin yellow; urine contains bile and albumen; evening, pulse 85; respiration 26; temperature 100 degrees. October 10, morning, pulse 85; respiration 23; temperature 99.5 degrees; evening, pulse 93; respiration 26; temperature 99.5 degrees. On the 9th the urine was suppressed; great capillary congestion of the extremities, face and neck; black vomit during the night of the 10th

Post-mortem examination revealed the characteristic lesions of yellow fever. If the last case be compared with the four preceding cases, which terminated favorably, we observe that in them the pulse was not so accelerated as in the fatal case, with urinary suppression and black vomit.

Case 7.—Yellow fever; jaundice; recovered. L. K., age 19; native of France; taken sick on October 18, 1873 with a chill followed by fever which continued for five days, up to 8 P.M., on October 23. During the period of convalescence, extending from the fifth to the twelfth day of the disease, the temperature ranged from 102 on the fifth day to 97.5 degrees on the eighth day; the pulse ranged from 60 to 86 beats per minute, and the respiration from 20 to 30 per minute. The pulse descended gradually from 86 on the fifth day with a temperature of 102 degrees, to 60, with a temperature of 98.8 degrees, on the tenth day of the disease.

Case 8.—Yellow fever. Maurice Pierre; age 28; native of Switzerland; came down the Mississippi River from St. Louis, and in passing Memphis went ashore for a short time. After having been in New Orleans for five days, the patient was seized with a chill on October 19, which was followed by a fever of continued type and which did not abate until October 22. Entered the Charity Hospital evening of October 21 with a temperature of 103.5 degrees. From the fourth to the ninth day of the disease, the temperature ranged from 97.5 to 101.2 degrees; pulse from 56 to 78; respiration from 24 to 32. Both the respiration and the pulse were at times intermittent. The urine contained but small quantities of albumen and the jaundice was comparatively slight in this case; notwithstanding the apparent mildness of the fever, the pulse descended to 56 beats per minute and was intermittent and irregular.

Such facts indicate that the slow and intermittent action of the heart in yellow fever during convalescence and in fatal cases during the period of calm or depression following the active febrile stage, is not solely due to such matters as the bile in the blood, but rather to the structural alterations of the muscular fibers which I have fully described.

Case 9.—Yellow fever; jaundice; slow pulse; recovery. Dennis Manning; age 28; native of Ireland. Has resided in New Orleans seven years. Entered Charity Hospital, Ward 24, November 4. Tongue red at tip and edges; gums congested, red and bleeding; intense thirst; vomiting; can retain nothing upon stomach; great capillary congestion; restless and sleepless; hiccough; urine loaded with albumen and casts. Ordered sulpho-carbolate of sodium, 20 grains every four hours; ice bag to epigastrium; ice-water injections to rectum; iced milk; fragments of ice in mouth.

November 7, pulse 66; respiration 20; temperature 100 degrees at 8 A.M.; November 8, at 8 P.M. 101 degrees; conjunctiva yellow and congested; surface of body yellow and congested; 8 A.M., pulse 60; respiration 20; temperature 98.5 degrees. At 8 P.M., temperature 99. Restless and prostrated; urine loaded with albumen and casts.

November 9, 8 A.M., pulse 66; respiration 16; temperature 99 degrees; 8 P.M., pulse 66; respiration 14; temperature 98 degrees. Tongue red at tip and furred, cracked and bleeding; gums congested and bleeding; great muscular prostration; action of heart slow—beats feeble. Treatment continued.

November 10, 8 A.M., pulse 60; respiration 20; temperature 98 degrees. 8 P.M., pulse 60; respiration 20; axilla 99 degrees.

November 11, tongue and gums red and bleeding; jaundice and great congestion of capillaries of surface and extremities which present a purplish mottled appearance; urine loaded with albumen; dizziness in head. At 8 A.M., pulse 52; respiration 20; temperature of axilla 97.6 degrees. At 8 P.M., pulse 68; respiration 20; temperature 100. Improving; bleeding from tongue and gums almost entirely arrested; dizziness in head still continues; pulse slow; but action of heart is feeble and patient incapable of any great exertion.

November 12, pulse 52; respiration 18; temperature 99.2 degrees. At 8 P.M., pulse 54; respiration 20; temperature 100 degrees.

November 13, 8 A.M., pulse 51; respiration 20; temperature 99 degrees. At 8 P.M., pulse 48; respiration 20; temperature 99 degrees.

November 14, 8 A.M., pulse 48; respiration 16; temperature 99.5 degrees. Continued to improve and was discharged in good health.

Case 10.—Yellow fever, engrafted on paroxysmal malarial fever and followed by remittent fever and phthisis pulmonalis. Charles Scott; age 32: native of New Brunswick; carpenter; resided in New Orleans for eight months. Admitted to Charity Hospital, Ward 13, Sept. 29, 1873. Says that three days before entering the hospital he was seized with a chill which lasted five minutes, and was followed by a fever of eight hours duration. The fever was again followed by chill and fever. After the relief of the paroxysmal fever by sulphate of quinia, a continuous fever with pain in head and back appeared on October 5. The following observations were recorded in this case, illustrating the superinvention of paroxysmal fever during convalescence:

Date.	Pulse.		Resp.		Temp.		Remarks.
1875	M.	E.	M.	E.	M.	E.	
Oct. 8	. .	67	. .	25	. . .	100 °	Patient has no fever but has pains in lumbar region.
" 9	60	64	22	22	99.4°	100 °	Feels fairly well, but weak; albumen in urine.
" 10	60	62	20	22	99.6°	101.8°	Appears to be improving; albumen in urine.
" 11	52	59	25	24	100.4°	101.2°	Did not rest well during night; tongue furred and very dry; thirsty; drank ice water but vomited it up.
" 12	52	52	22	22	100.2°	101 °	Conjunctiva and skin yellow; swollen; tongue red and apparently with spots of blood on it.
" 13	51	56	24	28	99.5°	100.5°	Jaundice; heaviness; red gums and tongue; pain and heaviness in epigastrium.
" 14	50	58	26	26	100.1°	100.5°	Severe pains in epigastrium; tongue red at tip and edges; gums red; jaundice.
" 15	52	62	26	28	100 °	101.5°	Jaundice; urine abundant, albuminous.
" 16	54	60	30	28	100 °	101.5°	Jaundice; urine abundant, albuminous; pain in epigastrium and lower extremities.
" 17	48	58	28	26	100.5°	102.5°	Jaundice and great congestion of capillaries; urine abundant and contains albumen and casts; pains in epigastrium and lower extremities.
" 18	54	52	30	30	101.2°	101.2°	Congestion of capillaries; jaundice.
" 19	50	52	24	18	101 °	102 °	Fever in evening; patient very weak, cannot sit up in bed; nervous; pains in epigastrium.
" 20	70	56	28	26	101 °	102 °	Feeling of uneasiness in epigastrium; albumen in urine; jaundice diminishing.
" 21	72	80	28	28	101.1°	102.2°	Jaundice diminishing; patient feels stronger.

" 22	78	80	26	26	101 °	102 °	Still very weak and exhausted by least motion.
" 23	58	58	20	20	100.5°	101 °	Appears to be much better.
" 24	. .	. .	. .	. .	103 °	103 °	Paroxysm of fever.
" 25	. .	. .	. .	. .	103 °	101 °	Fever; quinin freely administered.
" 26	74	76	32	24	101 °	98 °	Fever subsided.
" 27	80	68	24	28	99 °	101.5°	Convalescent.
" 28	80	. .	26	. .	101 °	. . .	Convalescent.

After the subsidence of the yellow fever, it was found that the temperature did not subside, but still kept up, and upon careful examination I found evidence of phthisis pulmonalis in both lungs. The following is the record of the pulse, temperature and respiration after the subsidence of the yellow fever:

Date.	Pulse.		Resp.		Temp	
1873	M.	E.	M.	E.	M.	E.
Oct. 28	. .	72	. .	28	102.5°	103 °
" 29	88	88	24	32	102 °	103 °
" 30	88	94	28	30	101.5°	103.5°
" 31	84	. .	28	. .	101.5°	103.5°
Nov. 1	92	. .	28	. .	101 °	103.5°
" 2	92	. .	32	. .	101 °	103 °
" 3	90	88	24	26	101.5°	103 °
" 4	90	. .	24	. .	100 °	103 °
" 5	94	88	23	24	100.8°	101.2°
" 6	84	79	24	24	100.6°	101.5°
" 7	. .	100	. .	32	101 °	103.2°
" 8	80	. .	28	. .	100.8°	101.6°
" 9	84	88	32	28	101.5°	102.5°
" 10	84	88	28	30	101.5°	102.3°
" 11	. .	90	. .	28	101.5°	103 °
" 12	. .	100	. .	30	101.5°	103 °
" 13	88	88	26	32	101.2°	101.5°
" 14	90	84	28	24	102.2°	102.5°
" 15	98	64	28	28	102 °	101 °
" 16	90	. .	36	. .	102 °	. . .

Case 11.—Yellow fever. Charity Hospital, Ward 25; John Pflum; age 26; native of St. Louis; fever begun with a chill of half an hour's duration, followed by fever on October 7. The fever continued up to the time the patient entered the hospital, Oct. 20, 1873. Had been sick two days before entering the hospital.

Date.	Pulse.		Resp.		Temp.	
1873.	M.	E.	M.	E.	M.	E.
Oct. 20	78	74	28	26	104.5°	104.5°
" 21	72	76	24	26	102 °	103 °
" 22	66	72	22	24	101.1°	103 °
" 23	66	70	22	24	100 °	100.2°
" 24	64	70	24	22	100.1°	101.1°
" 25	62	62	22	20	99.3°	100 °
" 26	64	60	23	25	99.1°	99.1°
" 27	60	59	22	18	97 °	98.5°
" 28	60	56	18	20	97.6°	98 °
" 29	60	76	18	24	98 °	98.6°
" 30	62	. .	18	. .	98.2°	. . .

REMARKS.

October 20.—High fever; skin congested; conjunctiva of eyes very much congested and injected; tongue furred and red at edges; great pain in forehead and throat; passes urine only with great effort; ordered iced milk and ice fragments in mouth; gums congested.

October 21.—Passes urine with great effort; urine loaded with albumen; complete suppression of urine during night; grows restless and talks at random during the night.

October 22.—Ice cold injections ordered and repeated three times; after the third injection, passes quite a quantity of urine; when patient gets sleep complains of nausea, when the sulpho carb. of sodium was ordered in 10 grain doses, repeated every two hours, which afforded relief to the symptoms and nausea.

October 23.—Patient slept well during night; has been able to drink a glass of milk and cup of beef tea; during the night, passes urine quite freely, loaded with albumen, and urine is greenish-yellow in color.

October 24.—Bowels moved; feels great relief and expresses himself as better; continue the sulpho carb. of sodium as above ordered; drinks milk and beef tea; urine passes pretty freely; albumen present in urine but decreasing in amount; complains of hunger; bowels moved.

October 26.—Tongue clearing off; skin begins to clear up; great hunger; urine returning to the normal standard; quantity of urine increasing.

October 27.—Patient sat up during the day.

October 28.—Goes about the ward, but watched; albumen disappears from urine.

October 29 and 30.—Patient goes about, is discharged and goes out cured.

Case 11.—Yellow fever. Adolph Kammer; age 21; native of Sweden, has been in America six years, in St. Louis, Mo Admitted in the Charity Hospital, Ward 13, November 1, 8 P.M. Had been in New Orleans two weeks; sick two days previous to entrance.

Date.	Pulse.		Resp.		Temp.	
1873	M.	E.	M.	E.	M.	E.
Nov. 2	84	82	32	43	104.5°	105 °
" 3	86	96	32	34	102 °	102.5°
" 4	72	70	28	36	101.5°	102 °
" 5	54	48	26	24	98.5°	101 °
" 6	52	50	26	22	98.3°	98 °
" 7	46	50	22	24	97.5°	98.5°
" 8	45	54	22	22	97.7°	98 °
" 9	52	50	26	27	97.8°	98 °
" 10	48	48	20	19	98 °	98.2°
" 11	52	52	26	24	98 °	98.2°
" 12	54	52	24	24	98 °	98.2°
" 13	52	46	26	24	98 °	98.2°

REMARKS.

November 2.—Skin hot and dry; slight jaundice; gums congested, tongue dry and swollen; kidneys acting imperfectly. Passed a small quantity of urine by catheter; urine loaded with albumen; ice water injection caused passage of urine during day and evening.

November 3.—Complains of stomach, but relieved by ice sprays to epigastrium. Has been treated with sulpho carb. of sodium, 5ij divided into 6 powders, one powder (20 grains) every four or six hours; milk punch, brandy and beef tea, and small lumps of ice in mouth. At night slight hemorrhage from the gums; passed urine quite freely towards the morning of November 4; urine dark colored and loaded with albumen and bile.

November 4.—Very quiet during the day; perspires freely and seems to be in better condition; passes urine freely. Continue sulpho carb. of sodium in the same doses. Milk punch, beef tea and ice. Wash the face and hands with tincture of camphor and water; this seems to refresh him greatly. Bowels have been moved.

November 5.—Passed a good night, had some sleep, begins to look more cheerful and desires to sit up.

November 6.—Passed a very comfortable night; jaundice disappearing; urine freely passed; urine still contains albumen, but the quantity is diminished.

November 7.—Doing well, sits up; all pain disappeared, although quite weak; eats and sleeps well; jaundice disappearing.

November 8.—Patient still improves; albumen disappeared from urine; walks around.

November 9, 10, 11 and 12.—Rapidly improves; jaundice disappearing rapidly; slight traces of yellow in eyes.

November 13.—Discharged from observation and leaves, November 17, quite well.

(To be continued.)

THE IDENTIFICATION CARDS OF THE U. S. ARMY.

BY MAJOR CHARLES SMART, U. S. A.

Every recruit enlisted in the U. S. Army, besides being examined as to his physical qualifications to undertake military duty, is subjected to a careful scrutiny for scars, moles, tattooings and other permanent marks on his person by which his identification may at any time be determined. These are recorded in their proper locality on a card bearing a front and back view, in outline, of the human figure. The card of each recruit, as soon as completed, is forwarded to the Surgeon-General's Office, where it is compared with the cards of the deserters, ex-military convicts and other undesirable men that have been filed in the office during the past six years. Should the result of this comparison be favorable to the man, his card is then placed in an alphabetical file and there continues until the honorable termination of his service. The office of the Surgeon-General thus contains an identification card for every enlisted man now in the military service. Should any of these men desert or be convicted of some military crime involving dishonorable discharge, his card would immediately be transferred to the file of "undesirable men."

For convenience of reference and comparison, the cards of the undesirable files are arranged systematically, the first division in accordance with location of scars, those cards showing a scar on the right forehead being in one file box or drawer, on the left forehead in another, and so for fifty-eight anatomic locations or divisions of the surface of the body. Each of these files is subdivided by height into seventeen sections beginning with "64 inches and under" and proceeding by half-inch gradations to

"72 inches and over;" and each of these sections is, if need be, separated into two groups by color of eyes, blue or brown. To permit of accuracy in the determination of color, the Surgeon-General has issued to medical and recruiting officers chromo-lithographed standard eye colors, by which the various shades may be indicated with precision, as Blue, No. 1; Brown, No. 4, etc., on the identification card. The cards of all undesirable men having the same height and color of eyes, with scars similarly situated on the body, are thus brought together and used with facility for purposes of comparison.

The second division of the files is arranged in accordance with location of birth marks, including moles, and these are subdivided as in the case of scars by height and color of eyes. These two divisions give 3,944 final groups—$2\times58\times17\times2=3,944$. Up to this time some of the sub-files have not required division by height or eye colors, on account of the small accumulation of cards of that particular kind.

The third division provides for the cards of men who have suffered amputations, as of part of the ear, toes or fingers. These give twenty-three sub-files without division by height or eye colors. The fourth division consists of tattoo markings which are separated into "distinctive" and "common." The first includes letters and initials, words, phrases, numbers and common tattoos in unusual locations; the second consists of hearts, crosses, anchors, sunbursts, flags, coats of arms, ballet girls, etc. The latter are grouped by location.

Separate files are kept for white and for colored men. The negroes are not subdivided by eye colors; but a sub-file is kept for those colored men who have blue eyes, this color in itself being a distinctive mark for these cases. This system of filing gives a total of 337 divisions, with 7,033 subdivisions, and it has the merit of being susceptible of expansion or contraction to meet the requirements of the service in which it is engaged. It may be contracted by omitting to subdivide by the eye colors, by making fewer subdivisions for height and by increasing the size and lessening the number of the surface locations, and it may be expanded by subdividing those anatomic locations which call for such treatment by a large accumulation of cards.

If an undesirable man has several notable scars on his person a card is made to be filed under the location of each of the scars, to insure his detection. A man having a prominent scar on the right forehead and another on the left shin has a copy of his identification card filed under both of these locations. In examining the files a margin of one inch below and half an inch above the recorded height is assumed to be needful on account of inaccuracy in taking measurements. The card of a recruit said to be 66 inches tall is compared with the cards of deserters from 65 to 66.5 inches. This suffices to cover the limits of inaccuracy in ordinary cases.

This system has proved most efficient in the Army. The Bertillion system of measurements is merely an index by which the card or record of an individual may be discovered in a mass of others; his identity is determined subsequently by reference to personal marks and other data. An error in any one of the various measurements will throw the investigator off the track of the required individual. In the U. S. Army system the personal marks themselves constitute the index and there is no liability to get off the track except in the case of height which is specially guarded as above mentioned.

SOCIETY PROCEEDINGS.

Louisville Academy of Medicine.

The regular meeting of the Academy was held in their rooms Monday evening, January 21, Dr. F. C. Simpson, Vice-President, in the chair. Dr. J. M. Ray exhibited a case of double empyema of the antrum, in which different operations had been done on the two sides. The first operation had been done in July last; with the aid of a dental surgeon the second molar tooth was drawn, an opening drilled through and a gold tube introduced, the cavity being washed out through this opening. The operation on the other side had been done in September, 1894, the opening being made through the canine fossa, and a Miles antrum soft rubber drainage tube introduced; of the two the latter operation seemed the most effectual as the drainage was better through the opening in the canine fossa. The case was exhibited with the drainage tubes *in situ*. The transillumination test in this case had not been satisfactory, owing to the double trouble.

DR. T. C. EVANS stated that in his experience the light test was very unsatisfactory, the diagnosis being made more from the other symptoms.

DR. DABNEY stated that in his experience the lamp test had proved very satisfactory. The points to be observed in its application which may often cause it to be unsuccessful, were: 1, have the room totally dark; and 2, always ask if patient has a plate in the mouth.

DR. VANCE exhibited a case of double inguinal hernia which has been reported in detail in *Mathews Medical Quarterly*, Vol. I, page 225, and in whom the hernia has not descended for eight months, the cure being almost entirely complete from the mechanical effect of the truss described in the article above referred to.

DR. RODMAN showed a case who had been kicked by a horse, over a truss, which was worn over an irreducible hernia. A week later he was operated on, an incision was made and fecal matter with pus escaped, and continued to pass through the opening for a week. The case was undoubtedly a rupture of an irreducible hernia with spontaneous reduction and a radical cure resulting from the inflammatory action. He also reported and exhibited six other cases in whom an operation for the radical cure of hernia had been done, the length of time elapsing being from a few months to eighteen months without a relapse. In one of these cases while tying off the sac he had included the appendix and amputated it, having considerable hemorrhage from the artery. Kocher's method of operating was used.

DR. W. H. WATHEN reported a case of double intra-ligamentous cyst, the two cysts being on the same side but entirely separate and distinct; the largest perhaps originated in the hylum of the ovary, the other perhaps in the parovarium. The patient is now convalescing, and the cyst is being washed out, first with peroxid of hydrogen, followed by sulphurous acid 1 to 10, which kills offensive odors most excellently. Dr. Rodman then showed a specimen of acute necrosis of the bones of the leg following acute osteo-myelitis. Ten weeks ago, the patient, a boy of 14, fell under a horse, his leg being caught under it; there was no wound, no fracture, but great pain occurred in the tibia some little time afterward. There was hectic, temperature 103 degrees, pulse 130. When first seen sinuses riddled the leg throughout. A preliminary operation was done, and no sound bone was found. An amputation was immediately done as he took chloroform poorly. Examination of the leg afterward found two spontaneous fractures at the epiphyses and the bone necrotic throughout, the process extending to the soft tissue.

The papers of the evening were then read, Dr. Vance reading Dr. Bullitt's paper in his absence on the "Truss Treatment of Hernia," and the one on the "Operative Treatment of Hernia," was read by Dr. Rodman.

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SATURDAY, FEBRUARY 2, 1895.

SYPHILIS IN THE ETIOLOGY OF NERVOUS DISEASES.

Within a few years there has been a great change in views regarding the importance of syphilis in the causation of nervous diseases especially tabes dorsalis and paretic dementia. For several years after the publication of ERB'S tables on tabes there was a contest, between those who regarded syphilis as the chief cause and those who denied its etiologic importance. Gradually the doubters have been silenced, and it is now admitted that a large majority of all cases of paretic dementia and tabes present a syphilitic history. Of late, however, we note a tendency to carry this view too far. A recent writer asserts that paretic dementia is only a late stage of syphilis of the brain.

Another writer argues that all cases of tabes are to be regarded as of syphilitic origin, for he says the proportion of cases claimed to be non-syphilitic has been steadily diminishing for a number of years, and if the present rate is maintained they will soon disappear from published tables. Apparently the lameness of this deduction does not occur to the writer but we are forcibly reminded of the humorous logic of MARK TWAIN regarding the shortening of the Mississippi River. This stream he said, owing to straightening of the channel, becomes shorter every year, and from known data he estimated that at the end of a few centuries it will be only four miles in length. It is only necessary to project the figures a little further to find a time when the stream shall have disappeared.

We admit that syphilis plays a most important rôle in the production of tabes and paresis. Probably 80 per cent. are of luetic origin, but to argue from this fact that they necessarily all are is not only a lame deduction, but it is fraught with most serious consequences. Not only may the innocent be branded with a loathsome disorder, but the medico-legal relations of such a doctrine must not be lost sight of. Almost all insurance applications have a reference to this disorder and the statements made by applicants are warranties on which the policies are issued.

We think that medical science is quite as much in need of logicians as it is of experimenters and observers.

MEDICAL TEMPERANCE ASSOCIATION.

This society formed at Washington in 1891, and composed of members of the AMERICAN MEDICAL ASSOCIATION, appears to be growing into prominence in many unexpected ways. Already its influence has been noted in many recent papers on the alcoholic problem, and several foreign journals have referred to a similar English society, and this Association, as the pioneers of this new field of research. They have both been very highly commended as scientific efforts to reach some intelligent conceptions of the underlying forces which explain the rôle of alcohol in medicine and as a beverage. Both of these societies are composed of members of the British Medical and AMERICAN MEDICAL ASSOCIATIONS, and both are led by eminent men. SIR BENJAMIN RICHARDSON is President of the English society and DR. N. S. DAVIS of the American society. Each society publishes a journal which presents papers and researches concerning alcohol, in a calm dispassionate way, particularly addressed to physicians.

Studies of alcohol, especially from its scientific side, have increased very rapidly within the past few years, and persons who have not followed up this topic will be surprised to find that a bibliography by no means complete, covers several thousand books, pamphlets and articles, of exclusive scientific studies. This does not include the half moral, half scientific dogmatic papers and lectures which fill the lay and medical press. The defenders of the various theories of old text-books of medicine frequently find themselves belated and need to become acquainted with the results of modern study before they can speak authoritatively.

A significant movement, outside of medical circles, to investigate the alcoholic problem has begun by a large number of teachers and college presidents and others of eminence in various parts of the country. While it is unusual to find so many very influential and really strong men united to investigate problems of this character, the work of the committees on the physiologic and pathologic aspect of the subject as projected, gives a strong impression of a very limited knowledge of both the subject and the proper

methods of study. The personal opinions of vast numbers of good men on such a topic are open to so many sources of error as to be practically worthless. If this inquiry was made of the sixty thousand physicians in this country, who have both practical and theoretical knowledge of alcohol and its effects, some facts of comparative value would be found.

The question of personal opinions on this topic would seem to be a very primitive way of ascertaining facts. It is the conclusion of all students that the alcoholic problem is scientific, and one of exact study, not of morals or ethics, and all efforts on the social and moral side will only deepen the confusion and obscurity of the topic. The Medical Temperance Association is a movement on the line of exact study, and a protest against theories of any kind that are not sustained by careful investigation and study of all the facts. To assume that this or that theory is true, because antiquity and the fathers believed it is not the spirit of modern science nor of modern medicine. If any present theories concerning alcohol are true, the evidence is demanded and tested, and if there is no reliable evidence that will bear critical examination, the theory can not be held as true, no matter how widely it has been accepted by all persons. However much the new truths may conflict with our previous conceptions or customs of life, they can not be kept down or suppressed. The alcoholic problem demands a new study from a wider point of view, and the Medical Temperance Association has the floor. If the medical profession had taken up this subject above the currents of prejudice and popular delusions no committee of non-sectarians would ever have had occasion to investigate this problem.

The coming meeting of the AMERICAN MEDICAL ASSOCIATION at Baltimore will also bring the fourth anniversary of the Medical Temperance Association, mostly composed of members of our ASSOCIATION, which meets at the same time and place. It would seem that the profession should take up this subject more actively and help on the study and work of investigation from every standpoint, so that some facts may be ascertained which all can agree upon as closely approximating the final truths of alcohol and its use.

SECTION OF NEUROLOGY AND JURISPRUDENCE.

While the promise of great activity and numerous excellent papers and studies are noted in all the Sections at the coming meeting at Baltimore in May, the Neurological Section is making an effort to give an exhaustive review of certain special topics that will be of unusual interest.

One of these will be epilepsy, medically, surgically and therapeutically considered. The other, hypnotism, its medical, therapeutic and medico-legal relations. This will cover the new realm of mental therapeutics in crime relations, and the novel applications of so-called new laws of mind over matter. The third topic will be the therapeutic relations of electricity in nervous diseases. This will bring out some of the recent resources that have been the subject of some comment. The plan of having several distinct symposiums on topics of unusual interest, will be highly appreciated and has become a popular feature of the British Medical Association. It brings to the hearer a study of the subject that is very pleasing and suggestive.

The officers of the Section, DR. D. R. BROWER, of Chicago, Ill., as chairman, and DR. T. D. CROTHERS, of Hartford, Conn., as secretary, especially desire to call attention to these studies, and invite correspondence with persons who may desire to read papers on these topics, or discuss them from any point of view.

NEW MEDICAL PRACTICE ACT.

The State of West Virginia is apparently to have a new Medical Practice Act, the House bill for that purpose having been favorably reported by the Judiciary Committee of that body.

The bill provides that the State Board of Health shall at such times as a majority shall deem proper, hold examinations for the licensing of practitioners of medicine. The bill provides for both written and oral examinations "covering all the essential branches of the sciences of medicine and surgery and the examination shall be a thorough and decisive test of the knowledge and ability of the applicants."

Should any applicant profess a desire to practice according to the "homeopathic" school, then the Board "shall call to their assistance a homeopathic physician duly licensed to practice medicine in this State."

The bill is in the right direction, but in our opinion the words, "practice of medicine" should be clearly defined, so that when cases arise under it there may be no quibble as to the meaning of the statute.

CORRESPONDENCE.

Treatment of Typhoid Fever.

KALAMAZOO, MICH., Jan. 25, 1895.

To the Editor:—By following the suggestions made in an article in the JOURNAL of December 4, by W. S. Caldwell, M.D., soliciting correspondence as to the antiseptic treatment of typhoid fever as advocated by Dr. John Eliot Woodbridge, I would give a brief outline of the treatment of two cases as stated in a paper which I read before the Kalamazoo Academy of Medicine, Oct. 15, 1894, on "The Abortive Treatment of Typhoid Fever." Sept. 19, 1894, I was called to see a lad about 10 years of age who lived in the celery region in a low and marshy part of the city; he had been complaining for four or five days previous with headache, backache and general languor. I found him with a brownish-gray tongue,

tympanitis, diarrhea and fever, his temperature ranging from 102 degrees F. in the forenoon to 104 degrees F. in the afternoon. I first gave him large doses of quinin for two days, which did not relieve his condition, but satisfied me that it was not malarial but genuine typhoid fever. I began the antiseptic treatment, as recommended by Dr. Woodbridge, September 21, the third day after first seeing him; the medicine was given in small doses every thirty minutes. I also gave a large dose of turpentine occasionally and used it externally when necessary. September 21, when beginning the treatment the morning temperature was 102 degrees F. and the evening temperature 104 degrees F. September 22, morning temperature 102 degrees F.; evening temperature 103 degrees F.; September 23, morning temperature 103½; September 24, evening temperature 104 degrees F.; September 25, morning temperature 102 degrees F.; September 26, evening temperature 103 degrees F.; September 27, morning temperature 102 degrees F.; September 28, I did not see him; September 29, morning temperature 101 degrees F.; September 30, evening temperature 101; October 1, evening temperature was 101½ degrees F.; October 3, temperature 100 degrees F. In this case the temperature began to vary, gradually, a little for two or three days, and then diminish a little each day after beginning the treatment, and on the eleventh or twelfth day temperature was so near normal and other symptoms so favorable that I considered it safe to dismiss him. I saw him about a week after, when he was around the house and had no fever.

My next patient was a man about 33 years of age who called at my office in the evening and I found his temperature 104 degrees F. He had been feeling quite badly for a few days previous, and said that he was taken with a chill. He was suffering from headache, backache and a dull heavy languid feeling. I called at the house the next day and treated him symptomatically for a few days, giving large doses of quinin, calomel, etc., but soon found that it did not diminish the fever and that his temperature assumed a regular typhoidal character. I began the antiseptic treatment September 21, at the same time that I did my other case, and dismissed him on the same day, October 3. After beginning the medicine, the temperature went through about the same degree of decline that it did in the first patient, with the exception that it was normal October 3, when dismissed.

Two or three cases may not be sufficient to establish positive evidence that this treatment is correct, but I can say that it worked better with me in these cases than any plan of treatment which I have followed in typhoid cases, since beginning the practice of medicine about twelve years ago. I hope to hear from other members of the profession who have tried this treatment.

Very respectfully,

FRANK C. MYERS, M.D.

The Bill for the Re-organization of the Personnel of the Navy.

To the Editor:—Under the pretence of increasing the efficiency of the Navy, this bill seeks to humiliate and degrade the staff corps. To counteract the enormous increase of pay required for 16 rear admirals (major generals) and 234 commanding officers (to command *fifty* vessels in commission), it proposes to take away from the staff corps some of their pay to help meet these remarkable line changes. Why should a doctor's pay be diminished because of any change in the line? His value does not depend upon the line. The market value of doctors does not depend upon the supply of ensigns. They come from civil life and their pay should be fixed at what good men of their profession are worth. They have educated themselves and no staff officer can ever reach the ultimate high pay of the line, or hope for the remarkable promotion provided for the line, by this bill. A writer in the *Brooklyn Eagle* forcibly states the case:

"This bill degrades the staff officers and makes them the servants of a selected part of the line. No such firebrand has been cast at the Navy since 1855. It is a mistake to think it is wanted by the service at large. It is opposed by 90 per cent. of the line above the grade of lieutenant commander and by every member of the Medical, Pay and Engineer Corps. These corps are absolutely essential to the efficiency of the Naval Service. Can this bill increase the efficiency of the personnel of the Navy if it makes it impossible to secure a competent medical department and places the lives of officers and men in peace and war at the mercy of incompetent men? Can it promote naval efficiency to deride the authority of the engineer officer over his men in the management and care of the complicated and powerful engines of our new ships? Can it promote naval efficiency to place a medical officer so that he can not conduct properly a hospital in which he has line officers, staff officers and enlisted men as patients? With one accord all the staff officers repudiate the ghost of positive rank offered by this bill. There is, indeed, no positive rank conferred, for it is offered in one section and taken away in others. Why should not a medical officer have military command in a naval hospital or in his own department on a ship? Why should not an engineer officer have military command over men around the boilers and engines of a ship? Why should not medical, pay and engineer officers have military command in their own departments at all times and exercise it under the commanding officer, whatever may be his rank, as do all other officers from the youngest ensign in charge of a watch? How are they to control the men under them if they have no authority by virtue of their orders and commissions? Can a bill which denies this authority and which makes the staff officer regard the words on his commission of no avail, promote efficiency in the Service? It is a mistake to suppose that this bill is in the interests of harmony and good feeling in the service or that it will definitely settle the controversies which now exist. So far from it, it is a bill productive of discord, discontent and bad feeling. It will, with its reserve list and treatment of staff corps, cause numbers of dissatisfied officers, and in place of harmony and efficiency it will cause more discord and trouble than the Navy has ever known. It is a mistake to think that staff officers want military rank for the naval rank they have. They want military command in their own departments only and under the commanding officer as are all other officers. A similar provision has existed many years in the Army, where discipline is jealously guarded. The staff corps desire simply the Army law, and that is all they ask for. They are commissioned officers and are not any more insubordinate and unworthy of trust than other commissioned officers.

"Aside from this, the other main features of this bill affecting the staff corps are most unjust and seem to reflect the same desire to destroy their efficiency. There are five grades now in each of the three staff corps mentioned. This bill makes six and thus divides each corps into smaller fragments. It thus fixes a smaller number of men who can have any given rank at the same time. The middle grade in each corps is divided, the junior fragment only being given the higher rank. This whole grade once had the higher rank, but now has two ranks owing to stagnation in the line. For some years now the rank of the majority of the members of the Medical, Pay, and Engineer Corps has depended upon promotion in the line, each of these staff officers taking his rank within grades in accordance with a certain line officer with whom he has had to keep pace. Stagnation in the line has made stagnation of rank in the staff, and now this bill rapidly advances the one and holds back the other. It does this not only by dividing the staff corps into a greater number of grades, but now that they would be benefited in rank by the rapid line promotion provided for in this bill if the present system were retained, a new system is most conveniently adopted under which the relation in rank between line and staff now existing is abolished, and the staff corps made to retain much of the damage in rank they have sustained. The division of the staff corps into a greater number of grades is one of the most unjust things in this bill. It is designed for the purpose of preventing forever the staff corps ever being what they had, and which should be restored to them by this bill—a bill which examination clearly shows is designed to exalt simply the younger portion of the line and to pull down, humiliate and make servants of most of the other commissioned officers of the service.

"A further examination only makes this spirit still more apparent. It has been shown that this bill provides 234 commanding officers for less than fifty ships of war. No ship can have more than one commanding officer, but many must have more than one doctor and one engineer. A ship having a complement of 300, 400 or 500 men goes into battle with one commanding officer. If he falls the next line officer takes his place. It would be inhuman and absurd to send such a vessel to sea in peace or war with one surgeon or one engineer. Even in peace the sickness or death of the surgeon would find no one to take his place. Epidemics on board at sea would find men dying for want of assistance. In war a recent experience has shown how many wounded a few minutes' fight at sea produces. Can one surgeon give the necessary aid? Why, everybody knows that many common surgical operations are never undertaken without several assistants. Can one surgeon do what humanity requires? And suppose the surgeon falls in battle, who is to take his place? No one can, if he is acting alone. It is absurd to say that he can not fall in battle, that he is down below safe from shot and shell. In the recent naval battle between the Japanese and Chinese the former lost ten commissioned officers, killed outright, and two of these were doctors—*20 per cent.* It is absurd to call any man a non-combatant in these days on a ship of war. Most of our ships being of the cruiser class are easily pierced, and perhaps no men occupy a more dangerous position in battle than the engineer force. What would a shot into a boiler or steam pipe mean? Death from scalding to a number of men—who like men in reserve are liable to suffer at any time and yet are not in the heat of the fight. This was the history of our war, and this will be the history that will be repeated. Beside, who is to be depended upon when the whole ship itself is to be used as a projectile, and her steel prow pushed into the hull of her adversary? Is not this making the Engineer Corps combatants, and should not the engineer officer have military command over his men at such a time? Who holds the throttle and who gives the ship her speed through the water and are most liable to suffer from the shock? It is absurd to think of only one engineer for the many complicated engines on a modern man-of-war. Now make the same comparison in this bill between the number in line and staff. Two hundred and thirty-four line officers to command fifty or sixty ships with one commanding officer to each ship! How many doctors? One hundred and sixty-five, when two or more are required on many ships and the hospitals on shore require staffs. How many engineers? One hundred and ninety, when several are required on nearly every ship. How many paymasters? Ninety-six for all purposes. Does not this comparison show the line strength in this bill, in which in spite of a number of commanding officers now that can

not be utilized, there is an increase of 30, nearly as many as there are ships, and the medical corps is reduced five numbers—from 170 to 165. Two hundred and thirty-four commanding officers and 165 doctors, 190 engineers and 96 paymasters. Is not this an absurdity? Is not this a fine bill and a malicious expensive one at that?

"Examine still other provisions and the unfairness of this bill becomes yet more apparent. In Section 12 it is arranged that there shall be at least twenty numbers made each year in all grades below lieutenant commander. Now as there are seventy-five lieutenants of the junior grade provided, an officer must pass through that grade at the most in a little over three and a half years, and will do so in less time. Now examine the staff corps. A man in any one of these corps must of course wait for vacancies above him in his own corps before he can be promoted. In the Medical Corps, there are forty lieutenants of the junior grade provided in a corps with 165 members, nearly one-fourth of the whole corps. As, during the last twelve years, there have been four numbers made each year, it will take a medical officer ten years to pass through this grade. Less than *three and a half years in the line* and *ten years in the Medical Corps*. This is, indeed, a line bill with a vengeance! In the Engineer Corps it will take five or six years to pass through this grade and in the Pay Corps seven years. The unfairness of this is very apparent. The result of this will be that young men in the line will have great rank, while in the staff a man will carry his gray hairs around, even in the lower grades.

"Even in this treatment of the staff corps mentioned there is a curious lack of consistency. In Section 25 it will be seen that in the Medical Corps of 165 members, 30 are allowed with the rank of lieutenant commander. In Section 33 it will be seen that in the Pay Corps of ninety-six members the same number of lieutenant commanders is allowed. In one case less than a fifth, and in the other nearly a third. A strange and curious inconsistency. The number of this rank in the Medical Corps should for every reason be fifty. That is the number of the surgeon's grade now for which the title, staff surgeon is substituted. They were all with the relative rank of lieutenant commander a few years ago, but are now divided in rank simply by line stagnation, and will be forever divided by this bill.

"Furthermore, this bill provides for a criminal result so far as the Medical Corps is concerned. The Medical Corps gets competent men now with great difficulty, and from lack of inducements offered has not had its complement since 1865. What will be the state of that corps under this bill? Every diminution in inducement means a lowering of standard for admission, and under the inducements offered by this bill this standard will necessarily have to be placed so low that the lives of officers and men will be placed in the hands of incompetent persons. Equalization of the rank and pay of the Medical Corps of the Navy should not be made with the line of the Navy, but with the Medical Corps of the Army. The market value of a doctor does not depend upon the supply of ensigns and has no relation to the Naval Academy. It depends upon the condition in civil life and upon inducements offered by the other public services, such as the Army and Marine-Hospital service. Vacancies in those services for which there are not suitable men is unknown. In the Army, assistant surgeons have the rank, pay and emoluments of a first lieutenant of cavalry for the first five years' service—pay alone $1,600—and the rank, pay and emoluments of the grade of captain after five years' service—pay alone $2,600 (Section 4, act June 23, 1874).

"At the upper end of the corps is one brigadier general, Colonels in the Medical Corps receive $4,500 on the active list and $3,375 on the retired list. This bill proposes for the Navy that an assistant surgeon shall enter with the rank of second lieutenant (Army), with his highest pay $1,200. He will be behind the Army man in his promotion and at the end, after many years, his highest shore duty pay will be $3,500. The Army ranks are generally full, but the rewards of service are none too great, and there is not much struggling for appointment. It is, therefore, a great mistake to suppose that competent assistant surgeons can be obtained for the Navy at $1,200 at sea and the rank of ensign. The result will be an incompetent corps. The efficiency of the Navy can not be promoted by destroying or weakening its medical service.

"From every direction the truth of the proposition becomes evident that Congress may improve the pay and position of the line officer, but it can not do so at the expense of the staff without injustice. This injustice would lower the efficiency of the service and make discord and discontent.—AN OFFICER OF THE NAVY.

Castration for Prostatic Hypertrophy.

Dr. Ricketts to Prof. J. William White.

CINCINNATI, OHIO, Jan. 23, 1895.

My Very Dear Doctor:—I received your letter recently concerning the removal of testes for hypertrophied prostate. Since that time I have kept informed upon all things pertaining to this new work, so far as I have been able.

The following communication was just received from the physician who has charge of the patient whose testes I removed on Oct. 26, 1894:

Jan. 22, 1895.

"*Dear Doctor:*—The patient whose testes you removed on Oct. 26, 1894, for hypertrophied prostate, has no obstruction, straining, or severe pain, which he formerly had while urinating. He passes water still too freely, and complains of burning and itching after micturition.

"I would say that he is well and doing nicely.

Very fraternally, L. M. GREEN."

Thus you see that the results in this case verify those of the others that have been reported.

I am thoroughly satisfied that this operation is one that, sooner or later, will become generally adopted for the relief of hypertrophied prostate.

I am also satisfied that to you belongs the credit for first suggesting it; surely for doing the experimental work necessary to establish the facts concerning it.

You may use this letter in any way you deem proper.

I am, very truly, MERRILL RICKETTS, M.D.

Dr. J. Wm. White, Philadelphia.

BOOK NOTICES.

Laboratory Guide for the Bacteriologist. By LANGDON FROTHINGHAM, M.D.V. Illustrated. Philadelphia: W.B. Saunders. 1895. Price 75 cents.

This is an excellent companion for the laboratory table. Several methods of bacteriologic examination are mentioned here that are not in common use, and some of them will save much time over former methods.

Syllabus of Gynecology; based on the American Text-Book of Gynecology. By J. W. LONG, M.D. Philadelphia: W. B. Saunders. 1894. Price, $1.

This syllabus seems to be a complete syllabus of the topics set forth in the "American Text-Book of Gynecology"; it is intended also to be used as lecture notes. The work is of the same style as Senn's "Syllabus of Surgery."

The Twelfth Annual Report of the State Board of Health of Indiana for the Year 1893.

This report, besides giving an official account of the sanitary work of the year, describes in detail the progress of the smallpox epidemic at Muncie and the measures taken to prevent its spread. Cuts and descriptions of the hospitals built for the reception of smallpox patients are given, and the volume concludes with a list of the physicians of the State.

The Retrospect of Medicine; a Half-yearly Journal containing a Retrospective View of every Discovery and practical Improvement in Medical Science. Edited by JAMES BRAITHWAITE, M.D., Lond. Vol. cx. July–December, 1894. (Issued January, 1895.) London: Simpkin, Marshall, Hamilton, Kent & Co. Ltd. Pp. 438. Cloth.

The title sets forth fully what Dr. Braithwaite assumes to accomplish. While the work is a valuable one, for the abstracts it gives are always interesting and instructive, it is far from complete, nor could a work give a complete abstract of the discoveries and improvements in medical science within the limits of 400 pages, and it is painfully apparent that the venerable editor draws from an extremely limited exchange list for a journal with such ambitious professions.

Notes on the Newer Remedies; Their Therapeutic Applications and Modes of Administration. By DAVID CERNA, M.D., Ph.D. Second Edition, Enlarged and Revised. Pp. 253. Cl. Philadelphia: W. B. Saunders. 1895. Price, $1.25.

This little book, which is dedicated to Prof. Horatio C. Wood, of Philadelphia, has a great field of usefulness. The newer remedies are described by the medical press as they are reported, from time to time, and occasionally mentioned in case reports, but the author has here gathered them together in one volume, and briefly given a definition, an account of the physical properties, solubility, physiologic action, therapeutic application and dosage of each. We are pleased to note that the decimal system of dosage has been employed. In most cases both the British and the metric dose is given. The volume is a useful one and should have a large distribution.

Medico-Chirurgical Transactions. Published by the Royal Medical and Chirurgical Society of London. Vol. LXXVII. London: Longmans, Green & Co. 1884.

This volume, one of the most interesting of its series, contains besides the usual lists, and proceedings, twenty papers as follows:

1, Diseases of many Joints probably of Syphilitic Origin,

by Anthony Bowlby; II, A Case of "False" Disseminated Sclerosis due to Measles, with Remarks on the Occurrence of certain widespread Nervous Disorders after This and other Infectious Diseases, by Dawson Williams; III, On Disseminated Fibrosis of the Kidney, by W. Ainslie Hollis; IV, Arthrectomy of Elbow and Ankle, by H. H. Clutton; V, On Albuminuric Ulceration of the Bowels, by Howship Dickinson; VI, Abdominal Section for Intestinal Obstruction due to Hydatids, by J. Hutchinson: VII, On the So-called Spontaneous Disappearance of Solid Abdominal Tumors, Three Cases, by J. Greig Smith; VIII, Nerve Stretching and Splitting, by Kenneth McLeod; IX, Two Cases of Intussusception of Large Intestine reduced by Introduction of the Hand into the Rectum, by Thomas Bryant; X, Case of Pleurisy caused by Pneumococcus, by J. W. Washbourne; XI, Ruptured Gastric Ulcer, Laparotomy, Recovery, by Thomas H. Morse; XII, Case of Resection and Immediate Suture of Intestine which had been Strangulated Eighty-one Hours, Recovery, by C. B. Lockwood; XIII, Persistence of the Thyreoglossal Duct, . . . by H. E. Durham; XIV, Case of Extra-peritoneal Vesical Hernia, by Ernst Michels; XV, An Operation for the Cure of Cleft of hard and soft Palate, by N. Davies-Colley; XVI, Case of extreme Prolapse of Female Urethra in a Child aged 6, by Thomas Bryant; XVII, Two Cases of Uretero-lithotomy, by Edward Cotterell; XVIII, Influence of different Soils on the Comma and Typhoid Organisms, by R. Dempster; XIX, Review of Cases manifesting Pain at the Heart or morbid Acceleration of Heart's Contraction subsequent to Influenza, by A. E. Lanson; XX, Case of Acanthosis Nigricans, by Malcolm Morris. Rarely has any volume of transactions contained so interesting a series of papers.

SELECTIONS.

Sublimophenol.—By bringing together equal molecules of mercuric chlorid and potassium carbolate and gently heating the solution, a brick-red precipitate, which passes through yellow to white, forms, consisting of a mixed chlorid and carbolate of mercury. This has been termed sublimophenol. Washed, dried, and dissolved in boiling alcohol it forms, on cooling, colorless crystals.—*Western Druggist.*

Delicate Reaction for Morphin.—Lama describes (*Apoth. Zeit.*) the following reaction as detecting 0.000005 gram of morphin: A few drops of the solution are placed in a porcelain capsule, with an equal quantity of uranium acetate solution (0.03 gram uranium acetate and 0.02 gram sodium acetate in 10 cc.). A brilliant red color results at once. Oxymorphin gives the reaction as well as morphin.—*Western Druggist.*

Toluol-Iron Mixture for Diphtheria.—Loeffler reports brilliant results (*Deut. Med. Woch.*) from the topical application in diphtheria of ferric chlorid and toluol. He publishes the following formulas: 1, dissolve 10.0 g. of menthol in sufficient toluol to make 36.0 cc. then add 60.0 cc. of absolute alcohol and 4.0 cc. of solution of ferric chlorid; 2, menthol 10.0 g., toluol to make 36.0 cc., absolute alcohol 62.0 cc., creolin 2.0 cc. The second formula is a substitute for the iron mixture. Menthol is added to reduce the pain. A small wad of cotton is saturated with the mixture and pressed firmly against the membranous plaques, repeating every three or four hours. The false membranes begin to soften and will soon separate in large patches.—*Western Druggist.*

Tellurium in Bismuth Salts.—P. Janzen calls attention (*Apoth. Zeit.*) to the frequent presence of tellurium in bismuth salts, which, with Bettendorff's test for arsenic, may lead to erroneous conclusions. While the possible presence of tellurium or selenium is well understood, yet not one Pharmacopœia has introduced tests for their detection. Commenting on Perleberg's communication the *Pharmaceutische Rundschau* reminds its readers that the alliaceous bismuth-breath is referred to, and ascribed to arsenic or tellurium by Hansen in Liebig and Woehler's "Annalen" for 1853, by Woehler and Gmelin before that date, in Blyth's "Chemistry" of 1879, by Squibb in "Ephemeris" for 1883, and others. While it is not known that the presence of minimal quantities of tellurium is injurious, the writer of this knows from experience that it is decidedly unpleasant, since for years he has been accused by acquaintances of having indulged in the strong-flavored garlic every time he had taken bismuth subnitrate for longer than one day.—*Western Druggist.*

PUBLIC HEALTH.

New York City Board of Health.—A New York paper, the *Sun*, calls attention to the peculiar formation of the Board of Health of that city—peculiar in that, unlike the other municipal departments, three of the four Commissioners are chosen, not as Commissioners solely of the Board which they help to compose, but because they also hold other positions. The Board consists of four members; one, a civilian, the President, is appointed as other municipal Commissioners are, by the Mayor. The first of his colleagues is the Health Officer of the Port, who is appointed by the Governor of the State, with the assent of the State Senate. The next of his associates is the President of the Board of Police Commissioners. In his case the appointive power is the Police Board. Thus one of the Commissioners takes his appointment from the Mayor, one from the Governor, and the third from the Police Board. There is still a fourth member of the Board of Health appointed by the Mayor, but subject to the limitation that he must be a practicing physician. In effect, there are two physicians and two laymen in the Board. Another peculiarity about the Board of Health is the fact that only two of its four members receive any salary as such, and that the two who are paid get different salaries, one (the civilian) receiving $5,000, the other (the physician) getting $4,000.

Does Disinfection Disinfect?—After a series of experiments with a 2 per cent. solution of the mercuric chlorid, M. Laveran concludes that disinfection by spraying, as frequently performed, does not suffice to destroy infectious germs. In presenting the results of his experiments to the Paris Academy of Medicine he urged that the walls of an infected room should be treated as a surgeon treats his hands before an operation. That is to say, they must first be washed with soap and then with an antiseptic solution, and he recommends the successive use of a 5 per cent. solution of carbolic acid and a 2 per 1,000 solution of sublimate. In order to make this form of disinfection practicable, all rooms exposed to frequent infection—hospitals, barracks, hotels, asylums and workshops—should be made with impermeable walls. M. Dujardin-Beaumetz replied to M. Laveran by recalling the very reassuring fact that during the two years in which the public service of disinfection had been working in Paris, local house epidemics have all been promptly checked. This practical test is sustained by the experience of sanitarians in this country where the methods of disinfection in the large cities are substantially the same as in Paris and where results are obtained which are certainly, as Dujardin-Beametz says, "very reassuring."

The Typhoid Oyster.—That veteran sanitarian, Secretary Lindsley, of the Connecticut State Board of Health, must derive no little amusement from the promptness with which his discovery of an etiologic relation between typhoid

fever and the oyster has been followed up by his British colleagues in public hygiene. Sir William Broadbent, Sir Peter Eade and a host of others of lesser note are flooding the English journals with instances of oyster-typhoid, suggestions of remedy and of protection of "our succulent friend from deleterious contamination," etc. And now comes Sir Charles A. Cameron, Medical Officer of Health for Dublin, with a claim of priority of discovery. It appears that some fifteen years ago Sir Charles read a paper on "Typhoid from Oysters," which "seemed to amuse but not to instruct" his hearers; since then, he says, the "possibility of the *materies morbi* of enteric fever and of other diseases gaining access to oysters has frequently been discussed, and I have published the cases of a large number of persons who were undoubtedly subjected to severe gastro-enteritis as the result of eating oysters which were undoubtedly fresh." At best, however, Sir Charles and the other titled and untitled gentlemen have only shown that, because oysters were found in sewage and sewage in oysters, and because the typhoid poison is sometimes found in sewage, therefore the oyster might be the vehicle for conveying the poison to the small intestines of its host. But they have failed to show that what might happen really did happen in any specific instance. It remained for our own Dr. Lindsley to demonstrate such an occurrence in the case of the Wesleyan College students.

Contagious Diseases.—The general death rate for the month just closed has been swollen by the mortality from phthisis, pneumonia and bronchitis, the usual seasonal prevalence and mortality of which have been materially increased by the remarkable and sudden variations of temperature which have occurred in almost all sections of the country. Aside from this the general morbility of the month presents no unusual features. The incidence of the contagious diseases remains about stationary, except as to smallpox, which, considered as an epidemic, seems to have passed its culmination. The largest number of cases of this disease is reported in Chicago, where there were 183 new cases up to the 30th ult., and a total of 268 treated—including 84 remaining in hospital at midnight Dec. 31, 1894. Of this number 98 were discharged, recovered, 42 died, 127 remaining; mortality rate 15.6 per cent. In the State at large Dr. J. W. Scott, Secretary of the Illinois State Board of Health, reports cases at and near Byron, Ogle County, at Sycamore, DeKalb County, at Harper, Ogle County and at Desplaines and Kirkland, Cook County. Dr. Wingate, Secretary of the Wisconsin State Board of Health, reports, for the week ended January 26, six cases, no deaths, at Appleton (confined to two houses and under control); two cases, one death at Two Rivers; five cases, one death in Gibson Township; five five cases, two deaths at Mishicott; one case, no death at Manitowoc Rapids; one case, no death in Franklin Tp.; six cases, five deaths in Milwaukee. Total number of cases on hand in Milwaukee, fifty-four; in hospitals, sixteen, in homes, thirty-eight. The JOURNAL is unable to learn the exact status of the disease in Detroit. A newspaper dispatch of the 26th ult., reports some sixty cases on hand, two-thirds being treated at homes. It was also stated that Dr. McLeod, the Health Commissioner, has tendered his resignation to take effect on the 15th prox.; that the position had been tendered to Dr. G. W. Stoner, U. S. M. H. S., who had declined, whereupon it was offered to Dr. W. H. H. Hutton, U. S. M. H. S., who had accepted, subject to the approval of the Supervising Surgeon-General of the Service. Influenza is slowly increasing the area of its invasion, but, except in New York City, has thus far exerted no marked effect upon the death rate except as it may have increased the mortality from pneumonia when it occurs as a complication of this latter disease. There have been, however, a number of "sudden deaths—cause not rated" among middle-aged and elderly persons who were afflicted with the disease two or three years ago.

SOCIETY NEWS.

King County (Seattle, Wash.) Medical Society has elected the following officers for the coming year: President, L. R. Dawson; Vice-President, W. T. Sloan; Secretary, F. B. Whiting; Treasurer, Geo. M. Horton.

Hampden District Medical Society.—The quarterly meeting of the Hampden District Medical Society was held in Springfield, Mass., January 15.

Brainard District Medical Society.—The quarterly meeting of the Brainard District Medical Society was held in Jacksonville, Ill., January 24.

How It Looks to the Lay Press.—At the meeting of the Tri-State Medical Association, at Atlanta, last October, Dr. B. read a very interesting and instructive paper, and he received requests from six of the leading medical journals of the United States to publish the same. The request was granted to the *International Journal of Surgery*, of New York, and he was complimented with 250 copies of a reprint, which is an unusual distinction accorded physicians. The article appears in the December number of the above journal.—*Chattanooga Times*, Jan. 20, 1895.

Cleveland Medical Society.—The Cleveland Medical Society held its annual election at its quarters in the Chamber of Commerce rooms on Friday evening, Jan. 11, 1895. The following officers were elected; President, Wm. E. Wirt; First Vice-President, Aug. F. House; Second Vice-President, H. S. Upson; Recording Secretary, W. F. Brokaw; Corresponding Secretary, F. S. Clark; Treasurer, N. Stone Scott; Librarian, Wm. E. Bruner; Censors, M. Rosenwasser, H. S, Straight, L. B. Tuckerman, A. J. Cook, W. J. Scott; Pathologist, A. P. Ohlmacher; Trustees, H. G. Sherman, Chas. Gentsch, C. F. Dutton.

Immediately after the election the Society adjourned to the Hollenden Hotel where the annual banquet was held. The retiring President, Dr. W. H. Humiston, stated in his address that the Society has 291 members; that the average attendance for the year was 135, being in this regard second to no society of its kind in the United States, as shown by reports he had received from other societies. The Society meets every two weeks.

NECROLOGY.

ALFRED L. LOOMIS, M.D, of New York, Jan. 23, 1895. Professor Loomis had been ill since Sunday with acute pneumonia. Was born in Bennington, Vt., 63 years ago, and was graduated from Union College in 1851 and from the College of Physicians and Surgeons in 1853. After his final graduation he served for two years as a member of the medical staff of the Ward's and Blackwell Islands hospitals. Then he engaged in private practice and soon became a recognized authority on pulmonary diseases. He became the visiting surgeon at several hospitals and public institutions. From 1862 to 1865, inclusive, he was a lecturer in the College of Physicians and Surgeons, after which he was made Professor in Medicine of the University of the City of New York. In 1867 he was made a Professor of Pathology of the same institution. Through an admirer he was placed in charge of a fund of $100,000 with which to build a laboratory in the same university, to be named after himself.

Dr. Loomis became a member of many medical societies and associations, and at his death he held a number of honorary degrees which had been conferred upon him. He was the author of a number of medical works, and may be said to have been one of the most popular physicians in the great city.

Dr. Loomis was twice married. Two children and a widow survive him. The funeral was held at the Church of the Incarnation at Madison Avenue and 35th Street, on Saturday, January 26.

JOHN YOUNG MCGAY, M.D., died Oct. 12, 1894, aged 40 years. He was a native of New York City, the son of Mr.

Robert T. McGay. He was educated in that city, taking his medical diploma in 1880, at the Medical Department of the New York University. At the time of his decease he was temporarily residing at Lisbon Centre, St. Lawrence County, N. Y. His fatal malady was chronic nephritis.

FOUNTAIN N. TALIAFERRO, M.D., of Hicksville, Long Island died January 16, aged 34 years. His death took place at Aiken, S. C., to which place he had gone several weeks ago for the benefit of his shattered health. Dr. Taliaferro was a native of Virginia, but he had been a resident of New York since the time of his graduation in medicine, which was from the University of New York, in the class of 1889. He was health officer of his township for one term, and had built up a very desirable practice.

E. F. SHORB, M.D., of Laurel, Md., January 15, aged 69.——Wm. Wood, M.D., of Grand Rapids, Mich., January 14, aged 56.——G. W. Topping, M.D., of De Witt, Mich., January, 14, aged 67.——J. W. Hicks, M.D., of Orlando, Fla., January 14.——Mary W. Noxin, of New York, January 16, aged 40.——W. A. McCully, of Independence, Kansas, January 22.——Francis C. Neale, of New York, formerly of Baltimore, Md., January 17, aged 60.——John Powell, M.D., of Pennsylvania, in Zacatecas, Mexico, January 28.——Robt. Lee Long. M.D., Mexia, Texas, January 20.——Henry A. Archer, M.D., at Meriden, Conn., January 20, aged 74.——W. O. Kulp, M.D., Davenport, Iowa, January 12, aged 59.——J. E. White, M.D., Toronto, aged 47.——Geo. C. Pease, M.D., Kalamazoo, Mich., January 25, aged 50.——Jas. Strong, M.D., Cleveland, January 29.——M. T. Trovinger, M.D., Hornelltown, Ohio, January 23, aged 35.

MISCELLANY.

Wisconsin State Board of Health.—At the annual meeting of the Wisconsin State Board of Health, Dr. J. W. Hancock, of Ellsworth, was elected President for the ensuing year.

Dr. E. E. Hegg, of North Yakima, Wash., has been appointed a member of the Washington State Board of Health and Bureau of Vital Statistics.

Dr. R. S. Bragg, of New Whatcom, Wash., died January 21 from rheumatism of the heart. He was one of the leading physicians of his county, an ex-President of the County Medical Society, prominent in Masonic and Odd Fellow circles, and a director in one of the city banks.

Can Not be Sent by Mail.—Bacteriologists and pathologists should take notice that by the new postal regulations, "disease germs and matters from diseased persons" are unmailable matter, and can not in the United States be sent by post.

Charbon in Sicily and Sardinia.—The malignant pustule rages with persistence in Sicily and Sardinia. From January to October, 1894, there were sixty-six cases of charbon in the province of Palermo. Experiments are being made in Italy to popularize anti-charbonous vaccinations and vaccinations on a large scale in the contaminated countries.—*Gazette Medicale de Liege.*

The Quarter Century Medical Club, for social, biographical and historical purposes, was organized in Detroit, Mich., January 15. The qualifications for membership are twenty-five years' practice in Detroit and good standing in the profession. The following officers were elected: President, Peter Klein, M.D.; Vice-President, E. W. Jenks; Treasurer, Hamilton E. Jmith; Secretary, J. J. Mulheron.

A Bengalese Superstition.—A paper, read before the Anthropological Society of Bombay, contains a long list of senseless superstitions that thrive in the Hindoo mind. There is one of them that has sufficient interest to quote before a medical audience, namely: "Do not wake up a sleeping physician." Comment is hardly necessary, but the saying will inevitably call to mind the Anglo-Saxon adage about "letting the sleeping dog lie." The parallelism does not speak well for the popular esteem of the native Hindoo physician.

Cologne Tippling.—According to *L'Union Medicale* this habit is increasing. Alcoholics, especially women, begin by taking a few drops of *eau de cologne* and finally drink it by the glass. The writer seems to think this form of alcoholism may replace or cure the cocain and morphin habits. The habit is exceedingly injurious, for in addition to the poorly rectified alcohols are the natural or artificial essential oils which are equally toxic. The practice is found among the upper classes principally.

Extirpation of the Stomach of a Cat.—At a recent meeting of the Paris Biological Society reported in the *Gazette Medicale de Paris,* M. M. Parchon and Carvallo exhibited a cat from which they had removed the stomach, and they detailed the results of the operation. The general nutrition was normal, the three species of foods—albuminoids, carbo-hydrate and fats were well digested; the digestion of milk, however, was faulty. The animal thrived best on a pap of milk, rice flour and yolk of an egg. Croked meat was perfectly digested, raw meat imperfectly. Professor Dasht observed that we know the gastric juice produces changes in meat similar to those from cooking.

Dr. Daniel Lewis.—Dr. Daniel Lewis, of New York City, has been nominated by Governor Morton to be a member of the State Board of Health. Dr. Lewis was born in Allegany County, New York, Jan. 17, 1846. He studied at the Alfred University, after serving in the Navy throughout the Civil War. Graduating in 1869, he studied medicine in the New York College of Physicians and Surgeons, taking his degree in 1871. When the New York Skin and Cancer Hospital was established, Dr. Lewis was appointed to a junior position on its staff of which he is now the head. He also occupies the chair of Special Surgery in the Post Graduate Medical School. Dr. Lewis was elected President of the County Medical Society in 1884 and reëlected a year later. He was elected President of the State Medical Society in 1889.

May Give Opinions as to Cause of Disease.—The rule is well established that an expert witness, in giving his opinion, must first state all the facts upon which he bases his opinion. But after a physician has testified fully as to examinations he has made of a patient, the condition in which he found the latter, detailing also to the jury what he learned from the patient, the Appellate Court of Indiana, in Louisville, N. A. & C. R'y Co. v. Holsapple, a case decided Nov. 22, 1894, holds that the witness may give his opinion of the cause of the patient's maladies, as for example what caused an unnatural growth in her womb. So also does the court hold that where a medical expert has testified fully as to the examinations made by him, he may state whether, in his opinion, the injuries as he found them are temporary or permanent.

Treatment of Gonorrhea.—Dr. H. M. Christian (*Therapeutic Gazette*) claims that irrigation of the urethra with potassium permanganate, 1 to 4,000, doubled in strength the second week, is the best remedy for simple non-infectious urethritis. The irrigations are made daily with about one quart of a warm—not hot—solution, the patient standing and the reservoir at a height of six feet. A cure can be effected in from ten to twelve days. This can not be solely relied on for a specific urethritis, but to a certain point he considers irrigation the proper treatment—relieving *ardor urinæ* and chordee promptly and largely preventing such complications as total urethritis and epididymitis.

Prophylaxis of Malaria.—A commission of the Therapeutic Society of Paris, consisting of Mm. Adrian, Bardet, Berlioz and Boymond, appointed for the purpose, have reported on the best forms of quinin to administer for the prophylaxis of malaria. As to form: Solutions of the salts of quinia should be reserved for active attacks; compressed preparations are condemned; preference is given to pills made up with a soluble excipient or to *perles* provided with a gelatinous envelope. The basic hydrochlorate is pronounced the best prophylactic salt—richest in alkaloid; sufficiently soluble; less irritant to the stomach than the sulphate. The hydrobromate may be substituted where there is intolerance of the hydrochlorate. Doses of 15 centigrams, night and morning, suffice to maintain the prophylactic effect during exposure to malaria.

Charlatanism in Bavaria.—From recent official statistics furnished by the Bavarian government in 1893, *L'Union Medicale* has compiled the following data: There were 1,152 persons in that country practicing medicine illegally—832 men and 320 women. In 1892 the number was 1,184, the diminution being in the men alone. As regards nationality, 1,097 were natives, 32 from other parts of Germany; 19 were Austrians, 2 Americans, 1 Italian, and 1 Swiss. Their previous occupations had been—pharmacists, 322; medical students, 2; widows of physicians, 2; bath assistants, 4; day laborers or peasants, 219; clerks, 12; salaried officials, 57; ecclesiastics, 22; religieuses, 2; workmen, 188; merchants, 49; professors, 6; writers, 6; masseurs, 10; annuitants, 44; widows of veterinary surgeons, 2; ditchers, 2; of unknown occupations, 52; the rest scattering. The branches of the healing art to which these individuals applied themselves were medicine generally, 333; sale of drugs, 207; intestinal worms, 6; surgery, 70: diseases of women and children, 21; electro-therapeutics, 14; fractures and dislocations, 21; secret remedies, 118; jaundice, 1; obstetrics, 43; massage, 4; homeopathy, 87; hydropathy, 13; magnetism, 6; internal medicine, 71; "natural" medicine, 10; diseases of the eye and ear, 9; uroscopy, 5; hernia, 1; wounds and ulcers, 34; dentistry, 10, etc.

Disinfection of Catheters.—Dr. John Ward Cousins in the *British Medical Journal*, Jan. 19, 1895, recommends a steam apparatus for the disinfection of metallic and other catheters. It is well known that boiling is not a good way to cleanse soft catheters, and that the insides of metallic catheters can not be satisfactorily cleaned by the ordinary method. Dr. Cousins' apparatus consists of a boiler having a capacity of about three pints and capable of bearing a pressure of eighty pounds to the square inch. It can be heated by a spirit or gas jet in about fifteen minutes. The steam pipe is connected with a circular tube fitted with projecting terminals, and these are adapted to hold a complete set of catheters. An old-fashioned spray apparatus can have the circular tube attached to them if required. After the steaming a polishing stilette is introduced and the instrument carefully dried.

Tricresol as an Intestinal Antiseptic.—M. Hiller, of Breslau, claims for tricresol a powerful microbicidal action, destroying promptly the bacilli of cholera, typhoid fever, etc. While more potent than carbolic acid it is relatively but slightly poisonous. Thus M. Hiller found it feasible to give 1½ or 2 grams for several days in succession, encased in gelatin capsules, containing each 10 centigrams of tricresol. M. Koelsch, of Newstadt, reports a series of twelve cases of typhoid fever treated with tricresol, to the exclusion of everything else, even baths. The patients took the remedy three times a day, half an hour or an hour after their milk or bouillon, according to the following plan: Three capsules the first day, 6 for the three following days, 9 for the next three days and 12 for the next three; from the eleventh day on, the daily quantity of capsules was gradually diminished in an inverse ratio. Koelsch claims that the patients treated in this way showed less tympanism and sensitiveness of the abdomen, and there was a total absence of complications and relapses. The six patients who were treated by this method from the beginning of the complaint —that is to say, from the third to the seventh day—reached a convalescent state in about the same length of time for the whole number of cases, a period that only varied between thirteen and seventeen days. It is reported that in these cases the favorable effect of the tricresol was most evident; this appeared generally as soon as six capsules a day were administered, though sometimes not until twelve were given and its chief sign was a gradual lowering of the temperature until it fell to the normal.

Thumbs Bring $2,000.—The case of Kitchell v. Brooklyn Heights Railroad Company, was instituted to recover damages for the loss of services caused by the amputation of the thumb of a 7-year-old daughter of the plaintiff. Liability therefore was charged to the company sued on account of its negligence causing the injury which resulted so disastrously. A verdict for $2,000 was returned, and the general term of the city court of Brooklyn holds, Nov. 27, 1894, that, considering the importance of the thumb as a member of the hand, and how necessary its presence is to make the hand available for use in nearly all ordinary vocations, this is not excessive, a bill of $100 for medical treatment having also been incurred.

Limit to Liability for Injuries Resulting in Miscarriage.—The courts are experiencing considerable difficulty in keeping questions of sentimental damages out of personal injury cases. In Tunnicliffe v. Bay Cities Consolidated Railway Company, decided Dec. 7, 1894, the Supreme Court of Michigan holds that while in such an action, brought for the recovery of personal injuries sustained by a married woman resulting in her miscarriage, the jury is allowed to consider the case with all its facts, and to take into account, for the purpose of a consideration, not only the physical pain, but also mental suffering, in determining the award of damages and while, of necessity, this involves to some extent a consideration of the nature of the injury, and can not exclude from the consideration of the jury the fact that the physical and mental suffering of the mother by reason of such an injury would be more intense than in the case of an ordinary fracture of a limb, yet beyond this it would not be competent for the jury to go, and to attempt to compensate for the sorrow and grieving of the mother. This seems to be the general conclusion of all the courts.

Decision on New York's Pharmacy Law.—In 1893, at the same session of the New York Legislature, there were two acts passed—one on March 31, and the other May 9. The first (Chapter 250, Laws of 1893) provided, in substance, that where a person was entitled to a license under the provisions of the act of 1884, but who had failed within ninety days to apply to the board of pharmacy for a license, he might, upon giving not less than eight days' notice to the secretary of the board of pharmacy, apply to the Supreme Court for an order directing the board to issue said license, and granting the court power to grant such order upon proof of good and sufficient cause shown for the neglect to apply for such license in due time. The other (Chapter 661 of Laws of 1893) made provision for a State Board of Pharmacy, and for the licensing of pharmacists. Under it there are two classes of persons who are entitled to a license to practice pharmacy,—those who have had four years' experience in the practice of pharmacy, prior to Jan. 1, 1893; and those who hold certificates of designation as pharmacists by examination from any board of pharmacy legally created under the laws of the State. The Supreme Court of New York, special term, Albany County, holds (*In re* Ward), Oct. 30, 1894, that this latter act was evidently intended to take the place of all statutes theretofore passed in relation to those matters, and by it Chapter 361 of the Laws of 1884 was expressly repealed; and, the whole of said act being repealed Chapter 250 of the Laws of 1893, being an amendment to a single section thereof, fell with it.

The Andrometer of Sir William Jones.—

The foregoing was the plan of Sir William Jones for the life of an English gentleman. With some variations it may be taken for any gentleman of another profession than that of law.

Skin Diseases in the German Army.—In one year, according to Antony (*Arch. Med. Milit.*) there were 89,845 cases of skin disease in the German Army—or 214.5 per 1,000 of total strength; 2,000 of these were scabies. In November, when the new recruits arrive, the cases of scabies increase markedly. The use of corrosive sublimate solution often causes the appearance of eczema. At Wiesbaden a case of general psoriasis was observed as the sequel of scarlatina. The use of one-tenth chrysarobin ointment is an excellent remedy for psoriasis, but symptoms of intoxication sometimes follow; these symptoms are usually gastric catarrh, rapid emaciation, ocular catarrh and coloring the hair white or red. A total of 23,565 men were treated for phlegmons and excoriations and 31,029 for furuncles. The treatment of furuncles with interstitial injections of carbolic solution—1 to 100—gave very variable results; as the result of numerous observations it is found that this mode of treatment is indicated when the furuncle has fully developed, but before pus has formed; unfortunately, the injection is extremely painful. Whitlow afflicted 10,387 soldiers, and two cases of pyemia and one of abscess of the thigh resulted.

Strontium Salicylate.—Dr. H. C. Wood, in common, as he supposes, with most practitioners, has for many years been trying to find some way of getting the general action of salicylic acid without the gastric disturbance which so often follows the exhibition of its salts of sodium and potassium. In the current number of the *University Medical Magazine* he describes a salicylate of strontium which he has had prepared and employed in a large number of cases in quantities of from 15 to 120 grains a day. In doses of 5 to 10 grains, given after meals, the salt very commonly improves digestion and in the dose of 5 grains an hour after meals in flatulent dyspepsia and various conditions of tendency to fermentative changes in the alimentary canal, it is a useful intestinal antiseptic, seeming to him to give better results than do salol, naphthol or other of the older antiseptic remedies. It has not yet been tested in acute articular rheumatism and Dr. Wood thinks it would probably be less efficacious in this disease than the ammonium salicylate; but in muscular or subacute rheumatism with a tendency to digestive disturbance he has found it a very valuable remedy, exerting the action of the salicylates upon the diathesis and improving instead of injuring the digestion. It may be given in solution, but is best administered in 5 grain capsules. In his preliminary experiments on the lower animals, undertaken to determine the influence of this salt on the circulation, Dr. Wood found that the dose of the strontium salicylate necessary to lower arterial pressure was nearly twice that of the sodium salicylate and distinctly more than that of the ammonium salicylate.

Life-Maintaining Dietary in Central Africa.—Lieutenant Lemaire, an officer of the Congo Free State, has written in the *Independence Belge*, on the improved health of foreigners dwelling above Stanley Pool, that has followed the larger use of the fresh vegetable products of the country. These vegetables are sufficiently varied, but they are so different from the accustomed food of Europeans and Americans that they do not at once find a welcome to their table. But they are soon found to be much more conducive to health than the imported canned goods, that can seldom be made to "keep" properly under the African tropics. M. Lemaire remarks upon the low rate of mortality among the whites upon the Upper River, as it is called; he seeks to explain the good health of certain of the missionaries as due in part to a plentiful amount of physical exercise, and in part to their adopting the food supplies that are native to the region. He says: "We have never seen an excess of manual labor bring on fever or any sort of indisposition. During my stay at the equator, from December, 1890, to June 19, 1893, not one of the white *personnel* of the station died, save a Danish mechanic who came to us only to take his bed. The best illustration that I can give is that of the American Protestant Mission carried on by the Rev. Charles Blair Banks and his wife, who have lived there seven years, and have had three children born there who are surprisingly healthy. The result is due to the fact that Mr. Banks, having built a charming cottage in the midst of a real park, has used the resources of the country for the larger part of his food supply—fresh vegetables from his garden, instead of canned peas, and, in general, fresh poultry and mutton instead of preserved meats—fresh goat and sheep milk instead of condensed milk, and the abundant fruits of the country instead of canned preserves."

Uniformity in Medico-Military Statistics.—The International Commission of Military-Medical Officers for uniform sanitary statistics which met at Buda-Pesth in September last, Dr. John S. Billings, U. S. Army, chairman, came to an agreement as to the character of the statistics to be published for comparative purposes by each of the countries participating

in the convention. The Secretary of the Commission, Dr Myrdacz, of Vienna, has been informed by certain members of the Commission of the continuation of their status as members by authority of their respective war departments. These include Drs. Billings, of the U. S. Army; Notter, of the British Service; Grossheim, of Berlin; Dziewonski, of Paris; Von Harten, of Copenhagen; Van der Straten, of Brussels; Sforza, of Florence; Hermann, of Ingolstadt; and Myrdacz of Vienna. A series of ten international statistical tables have been issued for the consideration of the various military medical departments and for adoption by them, if approved. These have been submitted to Surgeon-General Sternberg and it is probable that in his next annual report will be embodied the first issue of the international statistics Table 1, provides for the data gathered by the recruiting service; 2, and 3, for the sickness and mortality in the various military departments; 4, sickness as prevalent in the various corps and arms of the service, and by months; 5, sickness as distributed among the larger garrisons; 6, and 7, specification of the prevalence of the most important diseases in absolute numbers and in rates per thousand; 8, distribution of the important diseases among the different corps and arms of the service; 9, monthly prevalence of the important diseases; and 10, deaths from disease, suicide and accidents or injuries according to years of service and age. The important diseases of the international nosological table comprise thirty-three titles which include most of the specific febrile and acute infectious diseases with alcoholism, gonorrhea, hernia, sunstroke, scurvy, syphilis, trachoma, tuberculosis of lungs and of other organs, and diseases of the eye, ear, mind, heart, skin and genito-urinary system.

Barrack Room Floors to be kept Dry.—A few years ago it was the custom in the Army to scrub the floors of all barrack rooms every Saturday afternoon, preparatory to Sunday morning inspection when every man and all his belongings and intimate surroundings were expected to be at their cleanest and best. Saturday thus became a day of discomfort in quarters at all times and of danger to health in inclement seasons. The men detailed for the duty of scrubbing, scrubbed no doubt efficiently to remove stains when present, but as these were not usually allowed to disfigure the floor from one day to another the weekly cleaning up became often a perfunctory flushing with water and the removal of the wash water by the readiest possible way. The use of wax and turpentine, paraffin and benzin and other methods of filling up the pores of the wood and rendering the floors impermeable to water began in the wards of the post hospitals and has gradually been extended to other barrack rooms. The reports of the Surgeon-General called attention to this point in domestic sanitation some time ago and General Miles appreciating the suggestion has directed its adoption by post-commanders in the Department of the East in General Orders No. 5 Jan. 19, 1895, which read as follows:

"In cleaning the floors of barracks, dormitories, dining halls and other *occupied* rooms, post commanders will see that action is taken in accordance with the following recommendation of the Surgeon-General of the Army:

"Some medical officers in their reports call attention to the practice of flushing the floors of quarters, dormitories, dining halls, and other occupied rooms. At many posts this method of cleaning up is regarded as an indispensable preliminary to inspection of quarters. It has long since been given up in the Navy on the sanitary principle that a damp ship is an unhealthy one. The same principle applies to barrack rooms. It is important that the soil beneath the flooring should be kept as dry as possible, and this can not be effected if water is flushed on the floors and permitted to run through open seams or broomed into knot holes or auger holes, specially bored to permit of this method of disposing of the wash water. One medical officer, in view of such practices, felt called upon to report to his commanding officer that:

"'The barracks having been for the most part newly floored during the month, I recommend that positive orders be given that no auger holes be bored through these floors for the purpose of allowing water that has been used for cleaning purposes to escape beneath them.'

"Another medical officer states that he has served at posts where the men had the alternative of staying in quarters with a thoroughly wet floor, or going out of doors with two feet of snow on the ground and the thermometer at zero. As catarrhal and rheumatic affections are prone to be developed by flushing, commanding officers should prohibit the practice. Floors when lightly stained and waxed can be kept clean, dry and wholesome."

Hospital Notes.

NEW HOSPITAL FOR THE INSANE.—The Sisters of Mercy have decided upon the erection of a new hospital for the insane at Asbury, Iowa.

PRESBYTERIAN HOSPITAL.—The Presbyterian Hospital, at Milwaukee has been incorporated with a capital of $8,000.

EYE, EAR AND THROAT CHARITY HOSPITAL.—The annual report of the Eye, Ear and Throat Charity Hospital of Baltimore, Md., shows that 11,750 were treated during the past year.

A MATERNITY HOSPITAL will be erected in Syracuse, N. Y., on the site of the building destroyed by fire over a year ago.

WOMEN'S AND CHILDREN'S HOSPITAL ASSOCIATION.—The Women's and Children's Hospital Association have applied for a loan of $13,000 to begin the work.

AURORA (ILL.) HOSPITAL.—The annual report of the Aurora (Ill.) Hospital shows that 1,000 patients have been treated during the year.

LYING-IN HOSPITAL.—The new Lying-in Hospital of the City of New York was formally opened January 16.

NEW YORK POST-GRADUATE MEDICAL SCHOOL.—The directors of the New York Post-Graduate Medical School and Hospital met January 17, and elected the following officers: President, D. B. St. John Roosa; Vice-President, George Henry Fox; Secretary, James L. Skillin.

DR. PERCY BRYAN has been appointed first assistant physician in the Buffalo State Hospital.

Louisville Notes.

MORTALITY REPORT.—There was a total of seventy-eight deaths during the past week. There were fifteen deaths from pneumonia, and ten stillbirths in the number.

FOR THE STATE SENATE.—Dr. A. D. James, a Muhlenberg county physician, recently announced himself as a candidate for State Senator from the District composed of Butler, Ohio and Muhlenberg. The candidacy of Dr. C. J. Walton for State Auditor was recently announced through these columns.

CITY HOSPITAL.—Once more the hospital is in the hands of an "Investigation Committee" from the City Council. The present investigation seems to have arisen because of a personal difficulty between a member of the council and one of the contractors whose bill has not yet been paid for work done during the renovation of the hospital. The original estimate of the cost of repairing the hospital was far less than the total cost, which has amounted to $114,963.98, and already an investigation has been made because of this. It is not apparent what good can be done by the present investigation when the claims for the work done have been approved and the bills paid, except a balance for $800, due the contractor above referred to. It is certainly to be regretted that the money spent in repairing the old hospital had not been spent for a new building which would have done credit to the city.

A FAMOUS KENTUCKY SURGEON.—Dr. D. W. Yandell in his presidential address before the American Surgical Association, paid a tribute to the work of Dr. Charles McCreery, stating that it was to be regretted that more was not known of his personal and professional character. The following

has been furnished by a granddaughter of Dr. McCreery residing at Harrodsburg, Ky., which adds much to that already known of that great surgeon:

"Family records show him to have been of Scotch-Irish descent, his grandfather, John McCreery, moving to this country and settling in Maryland in 1730. His father, Robert, married Mary McClanahan, and Charles the seventh son, the youngest of nine children, was born June 13, 1785, near Winchester, Ky. His brother Robert, was the father of the late Senator Thomas C. McCreery, and his brother James, the grandfather of Gov. Jas. B. McCreery. Dr. McCreery studied medicine in Bardstown, with old Dr. Goodlett, it is thought, and settled in Hartford, Ohio County, about the year 1810. Here he married Ann Wayman Crow. Of their seven children four survive; Mrs. Clay, of Texas; Mrs. Vivian Daniel, Hardinsburg, Ky.; Major McCreery, C. S. A., and Mrs. W. A. Hargadine, St. Louis. Dr. McCreery was a great reader, a close student, and an eloquent speaker. The love of his patients for him bordered on idolatry, and his name was to them a synonym of kindliest sympathy and readiest helpfulness. His home life was characterized by unusual tenderness, sweetness, and an intense appreciation of child nature. In Hartford there lived at that time a very fine silversmith, and Dr. McCreery had him fashion instruments of his own origination for surgical use. He died Aug. 25, 1826, and is buried in the family lot in Hartford, Ky."

Washington Notes.

Medical Society of the District.—At the regular meeting of the society held on the 23d inst., Dr. John Chappell reported a case of hydrophobia cured by the Pasteur treatment. The dog had bitten two persons—one died, the other recovered. Dr. Harvey Reed, U. S. A., reported that he had examined the dog and from the spinal cord had produced the disease in two guinea pigs, which subsequently died. Dr. McCormick reported a case of ainhum. Dr. Adams presented a patient suffering from pemphigus.

A Statue for Dr. Gross.—A joint resolution permitting a bronze statue to be erected on public grounds in Washington in honor of Dr. Samuel D. Gross and appropriating $1,500 for preparation of the site was reported from the Library Committee in the Senate and passed.

Health Officer's Report.—Number of deaths (still-births not included): White, 56; colored, 54; total, 110. Death rate per 1,000 per annum: White, 14.56; colored, 29.47; total, 19.42. Death rate per 1,000 per annum for corresponding week last year, 22.62. Still-births: White, 3; colored, 4; total, 7.

A New Health Bill.—Health Officer Woodward has submitted to the Commissioners the draft of a bill, which if it becomes a law will materially increase the powers now possessed by the Commissioners to regulate the public health. The bill, which contains many important provisions that have been under consideration for some time, will give the Commissioners authority to make regulations governing the sanitary conditions of premises, cars, boats and public conveyances within the District; the location and government of cemeteries, bakeries, slaughter houses, markets, laundries and places where offensive business is conducted; the regulation and government of lying-in hospitals and infant asylums; the collection and disposal of night soil, the propagation and sale of vaccine virus and antitoxin, and the prevention and spread of contagious diseases. The bill is broad in its scope and gives the Commissioners ample powers. There is a section in the bill which amends the present law to prevent the manufacture and sale of adulterated food or drugs, by placing the enforcement of this act under the health officer. There is also a section which gives the Commissioners power to enforce quarantine regulations. The Commissioners have the bill under advisement, and it is not improbable that it will be sent to Congress in a few days with the recommendation that it be passed.

A Proposed Inebriate Asylum.—Mr. Meredith, of Virginia, has introduced a bill for the care and cure of inebriates in the District of Columbia. It authorizes the Commissioners to establish a public hospital for inebriates and their care and cure. The Commissioners shall have authority to lease premises for the use of the hospital at an annual rental not exceeding $1,800. Such persons shall be admitted for treatment as are committed to the hospital by the police court or criminal court of the District, and the judges of these courts shall have power to commit for not more than ninety days any person who may be convicted of the habitual excessive use of alcoholic liquors who might be amenable to commitment to the workhouse; second, such persons as may be recommended for treatment by the Commissioners; third, such as may voluntarily apply for admission and pay for treatment not less than $10 per week. All moneys so received shall be turned over for deposit in the Treasury of the United States.

Pure Milk for the District.—The House bill regulating the sale of milk in the District was discussed by the Senate District Committee yesterday and will be favorably reported after some minor amendments have been agreed upon.

Smallpox Scare in the District Jail.—Considerable consternation was caused at the jail by the discovery that one of the prisoners was sick with an extensive eruption. It was at first supposed to be smallpox, but Dr. Shute, the jail physician, has decided it is only chickenpox.

Congress and the "Medical" Men Meet.—The House Committee gave a hearing on Saturday, January 26, to those interested in the proposed medical practice law. The Medical Society, the "Homeopathic" Society, the "Eclectic" Society, the "Physico-Medical" "School," and the "White Cross University of Science" were out in full force, and each discussed the problem as they understood it. The free lances were also on hand with an individual bill. The Committee have taken the matter under advisement.

Sanitary Climatology.—The Department of Agriculture has opened a new sub-department known as the "Sanitary Climatology," and has issued a circular letter which was made the subject of editorial comment in the last issue of the Journal. Dr. W. F. R. Phillips, a member of the Faculty of the Columbian Medical School, has been placed in charge of the new Division, having first passed the Civil Service examination for the position—held on Oct. 22, 1894, in Washington, New York, Cleveland and Detroit.

St. Louis Notes.

The Health Department may justly feel pride in its new electric ambulance car. It may be seen any day in service, and it certainly proves a great convenience and a blessing to the injured. Doubtless other cars will ultimately be supplied as circumstances demand. The excellent street car system of St. Louis makes the use of the electric ambulance especially serviceable.

The City Asylum for the Insane has been opened for clinical instruction by the Health Department. The permission to hold clinics there has been used by the professors of several schools, and the interest displayed by students in this branch of clinical instruction is a justification for the continuance and extension of this privilege.

The Laboratory of the Washington University is now supplying culture tubes for the use of physicians in the diagnosis of diphtheria. The work of bacteriologic examination is carried out in the laboratory. The antitoxin treatment of diphtheria has been used wherever it has been possible to obtain the "Hail-serum." The results thus far have been highly encouraging. The Health Department will probably undertake the production of the serum as soon as sufficient funds are available.

St. Louis Free from Sickness.—The city is at present free

from any unusual amount of sickness, though there have been some indications of an epidemic of la grippe. Vaccination is being carried out in the city institutions in view of the possible appearance of smallpox.

REGULATION OF PROSTITUTION.—There has been much discussion in the newspapers of the question of regulation of prostitution. St. Louis formerly licensed prostitutes, and during the time when they were under legal supervision funds from these licenses were drawn upon to build the Female Hospital, which, at the time of changing the law, was appropriated by the city. The remark is now made that this hospital should be restored to those from whom the law made it possible to obtain it. There are many voices heard in favor of a restoration of the former order of things, when medical supervision sought to protect the innocent through giving the vicious a safeguard. Recent police regulations have driven the demi-monde from their usual quarters, and the city seems destined to have it indiscriminately scattered throughout the respectable precincts.

THE CITY INSANE.—There is a movement on foot to place the city insane under State care. The gain of such a change would be very great; but the matter should not stop there; all State asylums should be, for once and all, removed from the domination of State politics.

DR. THOMAS O'REILLY has undertaken to excite the interest of the profession in the establishment of a State Examining Board. It is to be hoped that soon some such measure will remove the present relation of medical schools to medical practice. The better colleges of the city are all anxious to have such a change made.

THE DENSTROW MURDER CASE has excited much public and professional interest here during the past two weeks. The trial of the prisoner on the indictment for murder was suspended for an investigation of his mental condition. Local prejudice had led to a change of venue to Franklin County, where the inquiry was had, and consumed a week. The prosecution made an appeal to the spirit of vengeance and mob violence none the less shameful by reason of abundant precedent, but it was the only possible chance of gaining a verdict in the face of the facts. The newspapers, almost without exception, were in accord with the spirit of the prosecution, and daily sought to manufacture public opinion that left small chance for justice and humanity. The prosecution did not fail to call upon the Chicago precedent in the legal execution of Prendergast, thus showing how one wrong perpetuates itself and renders justice uncertain. The prosecution was unable to introduce a single expert, and had to rest its case on physicians who would not even testify that the prisoner was sane. The defense introduced a corps of distinguished experts from St. Louis, Drs. Chaddock, Bremer, Baudry and Simon, who gave the most unequivocal testimony showing the prisoner to be suffering with paranoia of a pronounced and unmistakable type. The court limited the inquiry to testimony bearing on the present condition of the prisoner, and thus cut off the most important means of elucidating the case. The charge of the court was within the antiquated lines of *partial* insanity and "degree of responsibility," and took no note of the more modern decisions. In the face of the most openly expressed prejudice, however, the value of expert testimony was indicated, in that eight jurors declared for insanity. A rehearing has been set for April 30.

ST. LOUIS MEDICAL SOCIETY.—The meeting of January 26 was remarkable for the reading of a paper by Dr. Paul Paquin, on the serum-therapy of tuberculosis. In this paper the Doctor set forth his discovery of the antitoxin of the tubercle bacillus, and gave the results of treatment in twenty-two cases of advanced pulmonary tuberculosis. The patients presented were all examined by the society, and no doubt was left of the fact that the results were all that were claimed. The serum used was that of the horse; and its preparation and use had been going on for two months. The reader presented very convincing arguments supporting his claims, and pointed out that where cavities have formed in the lungs there is always a mixed infection which necessarily interferes with the effects of the serum. Experiments were being conducted to test its effects in tuberculosis of joints, etc. The results were the more surprising from the circumstance that the patients lived on the ordinary poor-house fare. Every patient had ceased to cough, fever had disappeared, and weight had increased in every case, in some instances to the amount of twenty-six pounds in eight weeks. In laryngeal tuberculosis it had been definitely curative. There seems no doubt that this discovery is very remarkable and destined to open up a new line of treatment in tuberculosis. The society appointed a commission to investigate and follow out the treatment thoroughly, in order to establish the genuineness of the claims made. The society is still engaged in the investigation of charges of unethical conduct on the part of certain members, especially the much-advertised superintendent of the City Hospital.

THE PUBLIC SERVICES.

Army Changes. Official list of changes in the stations and duties of officers serving in the Medical Department, U. S. Army, from Jan. 19, 1895, to Jan. 25, 1895.

First Lieut. ASHTON B. HEYL, Asst. Surgeon, is relieved from duty at Columbus Bks., Ohio, and ordered to Ft. Thomas, Ky., for duty.

Capt. EDWARD R. MORRIS, Asst. Surgeon, is granted leave of absence for twenty-one days, to take effect upon being relieved from duty at Ft. Warren, Mass.

Major JOHN V. LAUDERDALE, Surgeon, will be relieved from duty in the Dept. of the East, to take effect upon the expiration of his present leave of absence, and will then report for duty at Ft. Omaha, Neb.

Lieut.-Col. HENRY R. TILTON, Deputy Surgeon-General, is relieved from duty at Ft. Omaha, Neb., and will report in person to the Commanding General, Dept. of Dakota, for duty as Medical Director of that Department, relieving Col. CHARLES C. BYRNE, Asst. Surgeon-General. Col. BYRNE, on being thus relieved, will report to the Commanding General, Dept. of the East, for duty as Medical Director of that Department.

Navy Changes. Changes in the Medical Corps of the U. S. Navy for the week ending Jan. 26, 1895.

P. A. Surgeon O. D. NORTON, ordered to Naval Laboratory and Department of Instruction, Brooklyn, N. Y.

P. A. Surgeon T. A. BERRYHILL, detached from Naval Laboratory and Department of Instruction, and ordered to the Naval Hospital, Brooklyn, N. Y.

Asst. Surgeon J. S. HOPE, ordered to examination preliminary to promotion, March 4, 1895.

LETTERS RECEIVED.

Armstrong, J. T., Beatrice, Wis.

Beach, C. H., Esculapia Springs, Ky.; Beck, Carl, New York City; Burr, C. B., Flint, Mich.; Biddle, Jas. G., Philadelphia, Pa.

Conner, P. S., Cincinnati, Ohio; Clarke, A. P., Cambridge, Mass.; Collins, J. S., Carlinville, Ill.; Chapman, J., Big Bend, Kan.

Damrell & Upham, Boston, Mass.; Douglas, Geo., Oxford, N. Y.; Drysdale, T. M., Philadelphia, Pa.; Davison, F. B., Fleetville, Pa.

Eagleson, J. B., Seattle, Wash.; Eastman, Joseph, Indianapolis, Ind.; Elliott, J. L., Duluth, Minn.

Frank, Louis F., Milwaukee, Wis.; Fisher, Henry M., Philadelphia, Pa.; Frazee, A. B., Elbridge, N. Y.

Gould, Geo. M., Philadelphia, Pa.; Goss, E. L., Sheffield, Iowa.

Herrold, R. H., East Chicago, Ind.; Hummel, A. L., Philadelphia, Pa., (2); Hinkle, Geo. W., Harvard, Iowa; Hampton, D. A., Telico, Texas; Hollingsworth & Mathie, St. Louis, Mo.; Horner, Frederick, Marshall, Va.

Jones, W. D., Rising City, Neb.; Johnson, H. P., Long Prairie, Minn.

Lounsbury, Mrs. C. E., Chicago, Ill.; Lippincott, J. B. Co., Philadelphia, Pa.; Longmans, Green & Co., New York City; Lanphear, Emory, St. Louis, Mo.

McDougal, J. G., New Lexington, Ohio; Morton, N. Henry, Brooklyn, N. Y.; Mercer, Alfred, Syracuse, N. Y.; Manley, T. H., New York City; Mogh, Wm. A., Ann Arbor, Mich.; McCurdy, S. H., Pittsburg, Pa.

Neer, H. C., Park Ridge, N. J.

Parke, Davis & Co., Detroit, Mich.; Patterson, M. F., Chicago, Ill.

Rardin, J. S., Portsmouth, Ohio; Reed, R. Harvey, Columbus, Ohio; Reincking, H., Sheboygan, Wis.; Ridlon, John, Chicago, Ill.; Roberts, John B., Philadelphia, Pa.; Robinson-Pettet Co., Louisville, Ky.

Smart, Chas., U. S. A., Washington, D. C.; Schieffelin, W. H., New York City; Stearns, Frederick & Co., Detroit, Mich.; Sentinel, The Co., Milwaukee, Wis.; Spofford, A. R., Washington, D. C.; Stechert, Gustav E., New York City.

Treat, E. B., New York City; Thornington, Jos., Philadelphia, Pa.

Ward, R. H., Troy, N. Y., (2); Wick, D. M., Cedar Falls, Iowa; White Rock Mineral Spring Co., Waukesha, Wis.; Wilson, T. M., Thornton, Texas; Weaver, W. H., Chicago, Ill.; Ware, C. D., Colfax, Cal.

PAMPHLETS RECEIVED

Blake, Edward, M.D., M.R.C.S. Lip Chorea and Paresis of the External Pterygoid Muscles, commonly called Stammering. London: Harrison & Sons. 1890. The same.—Diseases of the Eye, Nose and Throat in Children. London. 1893.

Eagleson, J. B. A Modification of the Halsted Operation for Hernia.

Wiggin, Frederick Holme. A Case of Chronic Peritonitis, with Intestinal and Abdominal Fistulæ.—Enterorrhaphy, Recovery. Reprint from *Medical Record*. 1894.

Gerhard, Wm. Paul, C.E. Novel Hot Water Apparatus for Rain or Douche Baths. New York. The same.—The Rain Bath at the Utica (N. Y.) State Hospital. 1894.

Schaeffer, T. W., M.D. The Commercialization of Medicine; or the Physician as a Tradesman. Reprint from Boston *Medical and Surgical Journal*. 1894. The same.—The Sociological Status of Medical Practice. Reprint from the *American Therapist*. 1894.

Rice, C. C., M.D. Atrophic Catarrh; a New Method of Treatment. Reprint from New York *Medical Journal*.

Haynes, Irving S., Ph.B., M.D. Diphtheria; a New Method of Treatment. Reprint from New York *Medical Journal*.